

VDSL Systems Strategy Report

VDSL VDSL Systems Strategy, VDSL Blueprint, Frameworks, and Organization

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| Roxanna Storaasli | (303) 595-2870 |
| Rich Cerami | (303) 595-0663 |
| Tim Figueroa | (303) 595-0562 |

VDSL

March 12, 2000
Version 12

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| A - VDSL System Dependency Chart | C - VDSL System Plan |
| B - VDSL Framework Change Process | D - Program Office Audit Review Area |



Introduction

What was done:

This document updates the current status of the VDSL Systems Strategies presented in November '99, as well as featuring VDSL Business Processes and Nine VDSL frameworks.

- | | | | |
|------------------------------|--------------------|------------------------------|-------------------------|
| • Repair | • Order Entry | • Activation | • Product Qualification |
| • Trouble Ticketing | • Inventory | • Product Ordering Assurance | • Provisioning |
| • Construction & Engineering | • Fault Management | | |

The the featured Business Processes highlight current implementation, business needs and the ability to scale. Each business process details, at a high level, the opportunities for improvement, resolution strategies and impact & issues. This analysis does not propose an optimal state but rather recommends interim term options for resolving immediate VDSL concerns.

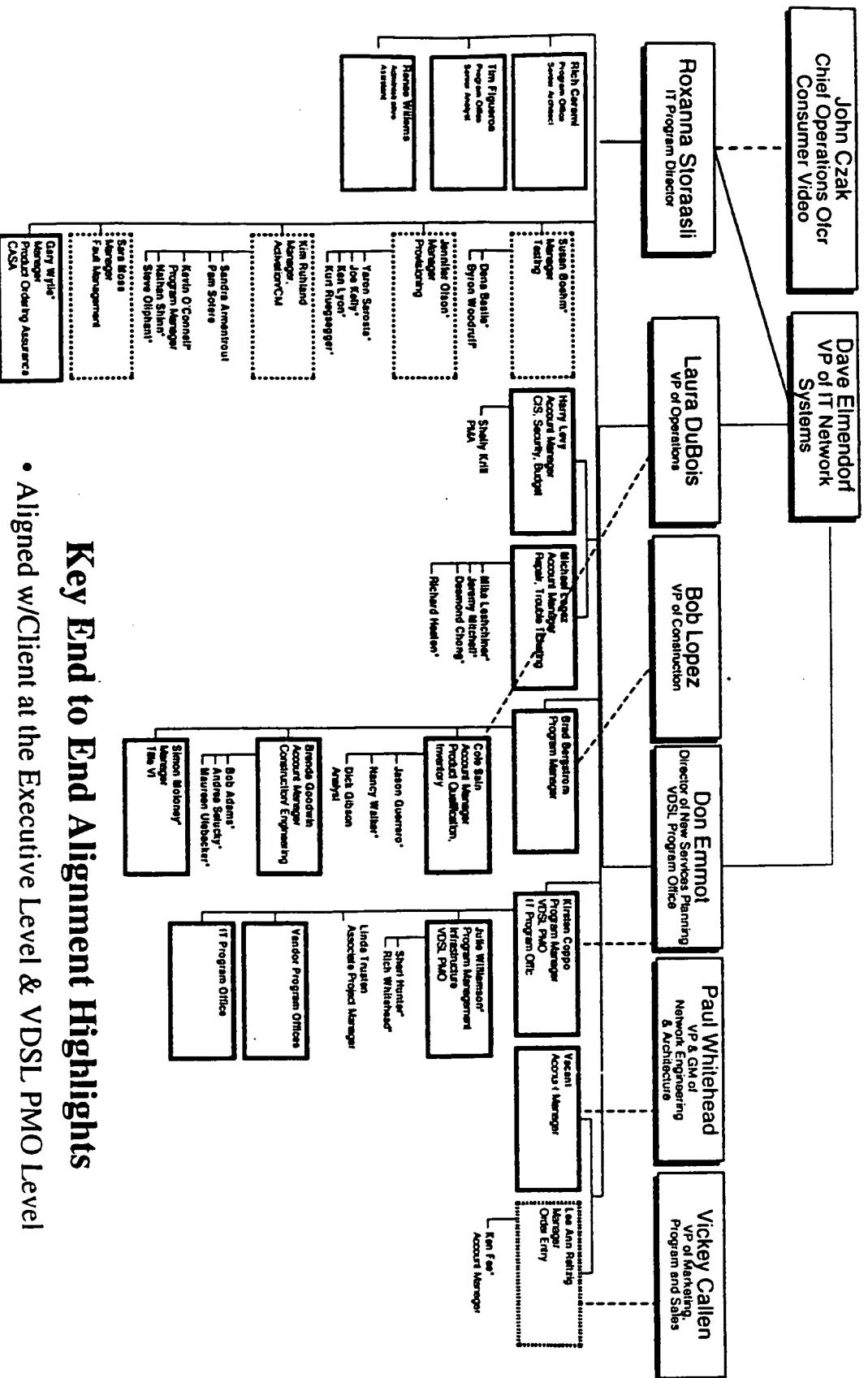
How it was done:

Data was gathered by visits to the TOC, MMOC and VDOC, as well as interviews with key leaders, technicians, stake holders and organizations; all of which provided documentation used in this report.

VDSL Systems Strategy Overview

Feature Area: The Organization

VDSL Systems Organization



Key End to End Alignment Highlights

- Aligned w/Client at the Executive Level & VDSL PMO Level
- Aligned w/IT Software Development at the VDSL PMO Level
- Aligned w/Vendors at the VDSL PMO Level

VDSL Program Accomplishments

VDSL Blueprint

- 92% complete on Framework Analysis and Planning (working on Fault Mgmt., Loop Qual. & Sec.).
- We have identified and prioritized 38 key initiatives with a 15 initiative quick hits sub-list that support accelerated VDSL rollout plans.

Program Office

- Adding resources in Account Management and Development, Business requirements are underway, deliverables and timetables have been identified, additionally development teams have been engaged.
- Producing Q14, Q13 and work with Development on Q10 detailed project documentation
- The VDSL Program Office will manage using standardized methodologies & tools to report on program status and deliverables.
- The VDSL Program office is developing procedures for Tracking and Scheduling, Financial Management, Issue Management and Risk Management, Resource Management, Quality Management, Stakeholder Management and Third Party Relations.
- Developing mitigation strategy for each VDSL Framework Initiative.
- Leading Title 6 Business process, training and requirements development.
- Leading Business process, Gaps Analysis and Tools trials for Client.

VDSL Status

Accomplished to Date:

Development

- Briefed Development Leadership in VDSL Program, Architectural Blueprints, Initiatives and Accelerated Roll Out Plans, as well as VDSL development wish list and needs.
- Architecture Reviews in progress.
- Project Office Identification and Staffing for each VDSL Framework in progress.
- Quick Hits Teams and Development Project Office build in progress
- Initiative Architecture Reviews being Scheduled

Next Steps

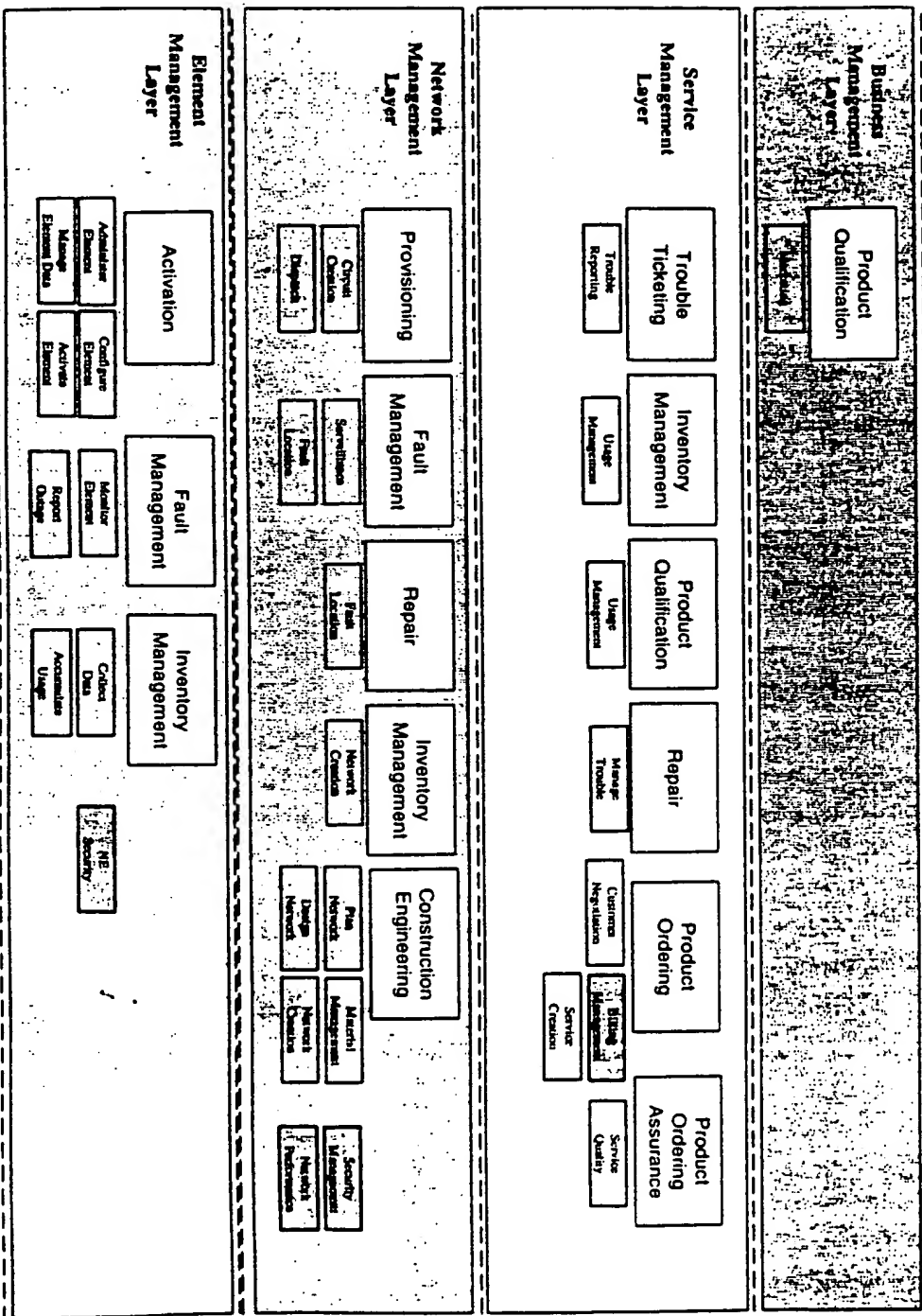
- Commission Executive Steering Committee
- Q10 deliverables from Development
- Validation of priority deliverables with Client
- CIS expansion for Multiple City Footprint build-out
- Acquire and Assign Budget
- Continue and Complete VDSL Roadshows

VDSL Scalability

- **Current VDSL Systems Scale Points**
 - Manual Processes
 - Non-integrated Systems
- **Resolving Scalability issues will result in Benefits**
 - Accelerated Mass Market Roll Out
 - Cost Reduction
 - Quality

VDSL TMN View

xDSL Blueprint mapped to TMN
Chart indicated framework and TMN component addressed within framework



Adaptation of the TMN model for defining technology areas is a critical factor. It also serves to template organizational resources.



Not addressed in Blueprint

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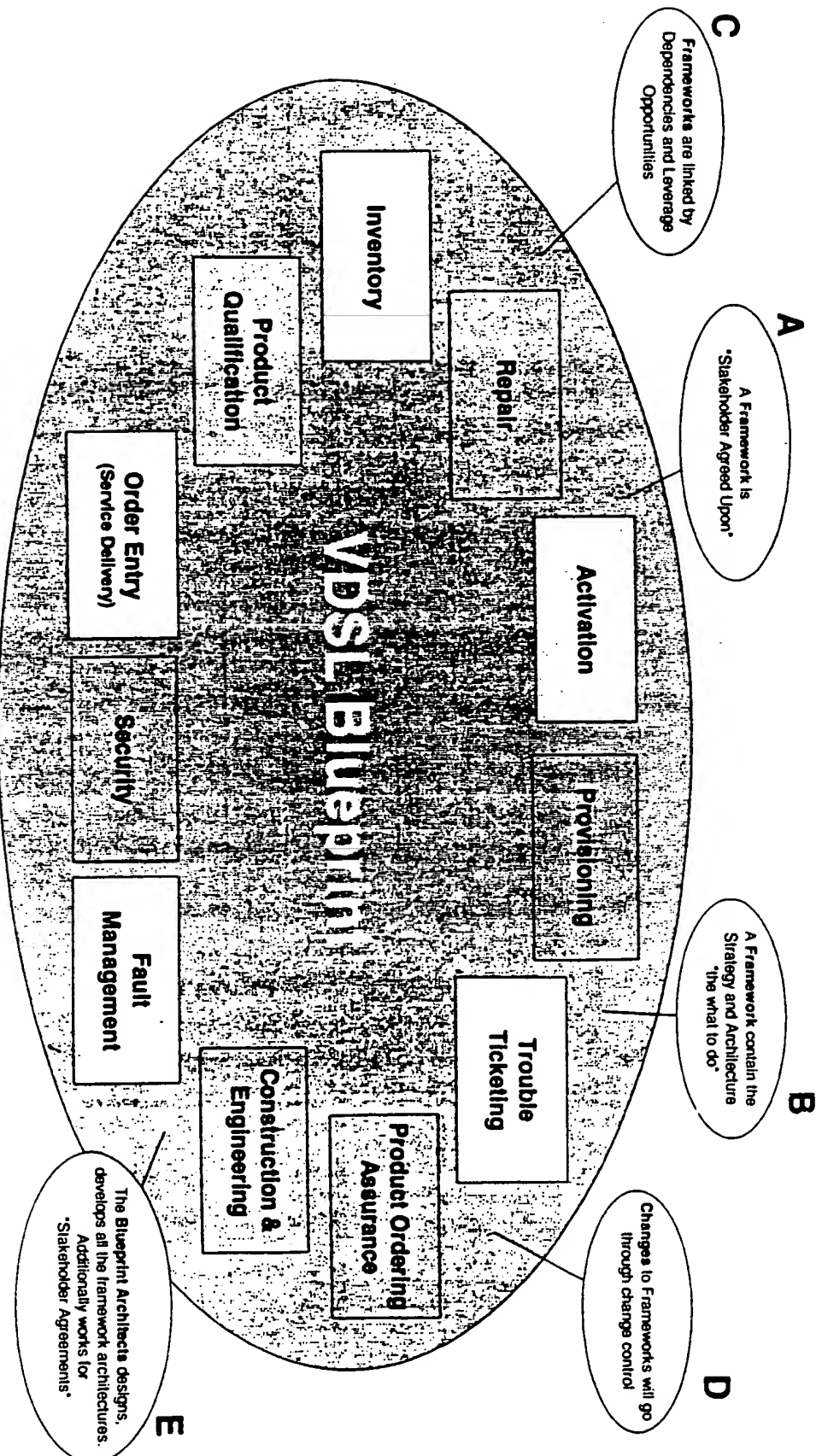
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VDSL

VDSL Systems Strategy Overview
This graphic does not imply a framework hierarchy

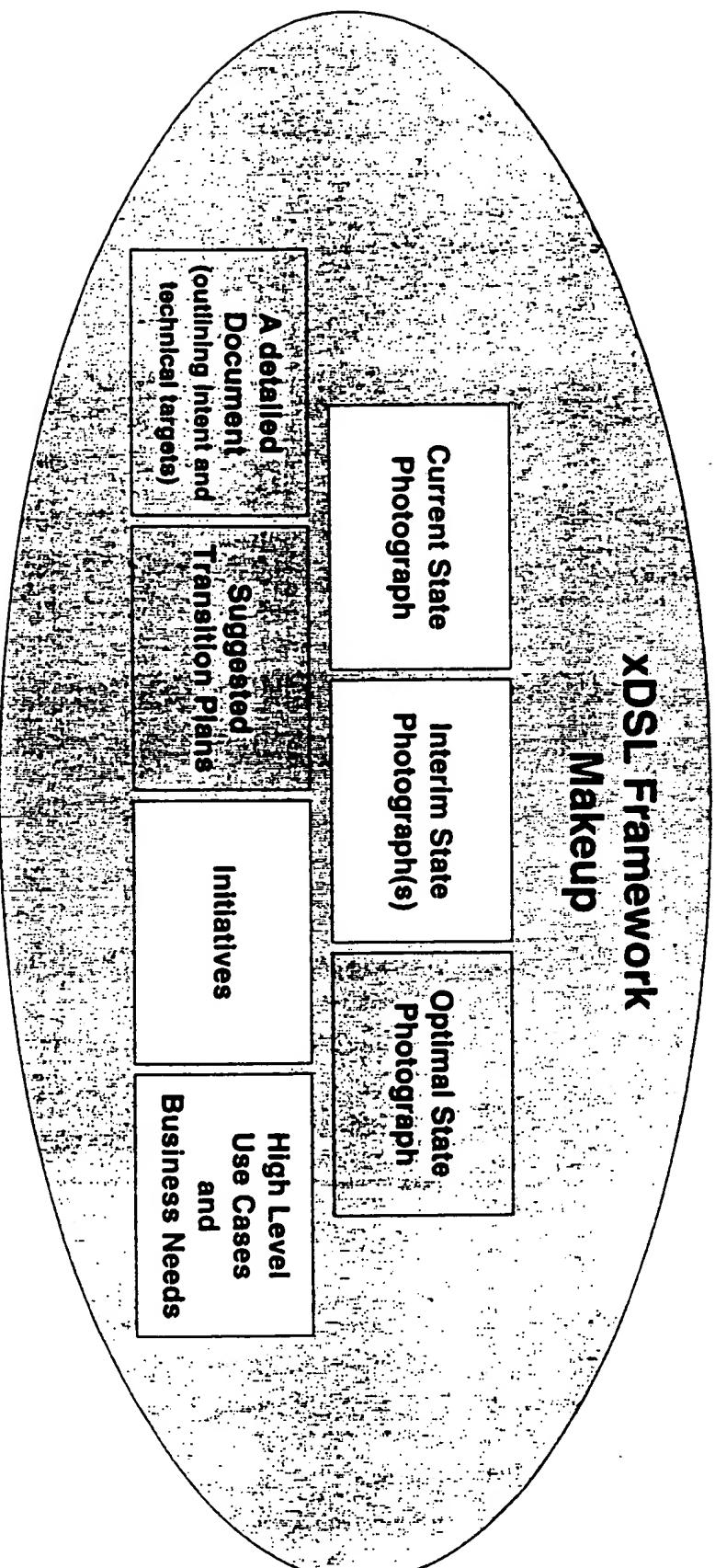
Section I - Status

VDSL Blueprint



- The Blueprint is the master plan that takes into account the Business Need
- The Framework structure breaks down the work into Manageable Portions

VDSL Framework



- Where we are (Current State)
- Where we are going (Interim & Optimal State)
- How to get there (Transition Planning & Initiatives)
- Additionally when, cost, impacts and risks

VDSL Budget

Budget Management

- VDSL - \$100 million
- Management Tool: BMS
- Management Process:
 - Q 13: Create initiative level budgets in BMS as “projects” (AM Accountable)
 - Q 10: Create project level budget in BMS as “sub-projects” under related initiatives (Software Development PM accountable)
 - Perform monthly reviews of budgets with Executive Review Board (IT, Finance, Client)
- Change control process managed by VDSL PMO

Next Steps

- Work with Software Development project offices for budget allocation and process definition

Section I - Status

VDSL Program Management

Roles & Responsibilities

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| | | SD VDSL | Director | Networks | VDSL Dir. |
| | | | | Other COE | VDSL Dirs |
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Account Management

- Q13-Q10 deliverables
- Requirements definition
- Program/project architecture/blueprint
- Requirements tracking for initiatives
- Implementation oversight
- Testing plan and oversight
- Issue identification and resolution
- Risk identification and resolution

VDSL Program Management

- Overall program tracking and management
- Overall program risk and issue escalation
- Overall program issue resolution
- Overall program risk mitigation
- Executive stakeholder communication
- Overall program architecture
- Overall program integration & dependency management
- Program metrics and QA

IT Projects

- Q10-Q2, Q2-Q0 deliverables
- Project management
- Task plan development
- Requirements tracking
- Status reporting
- Cross-project coordination
- Issue & risk identification & resolution

Section I - Status

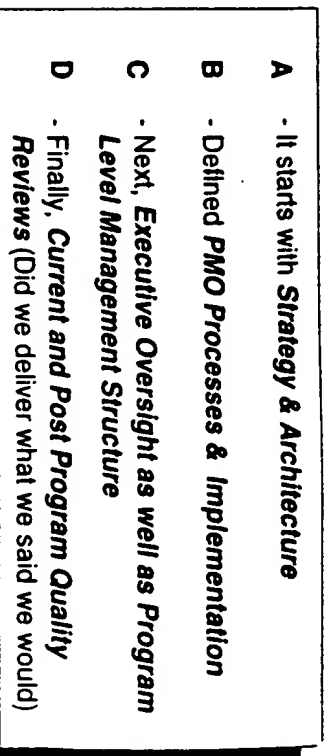
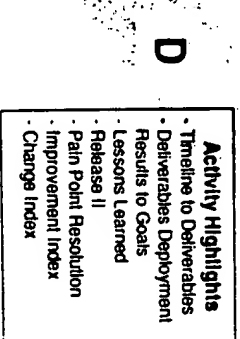
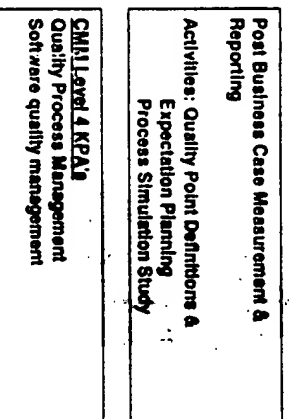
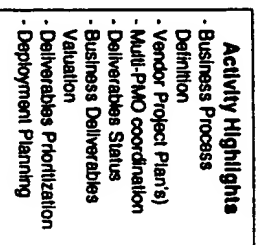
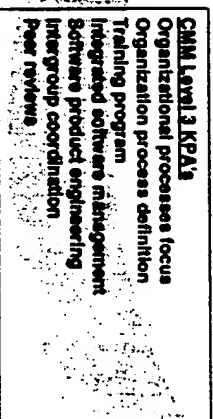
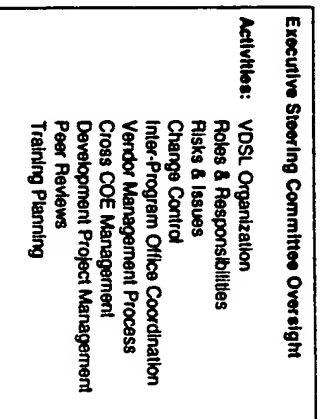
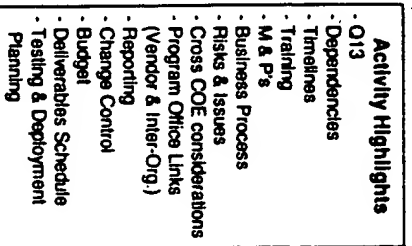
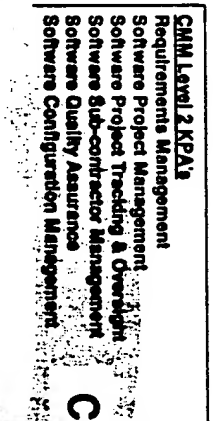
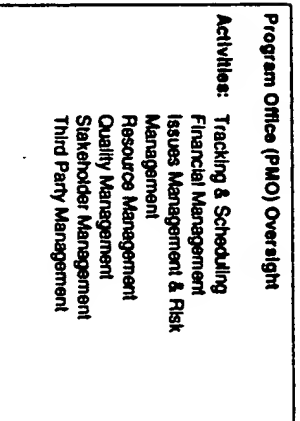
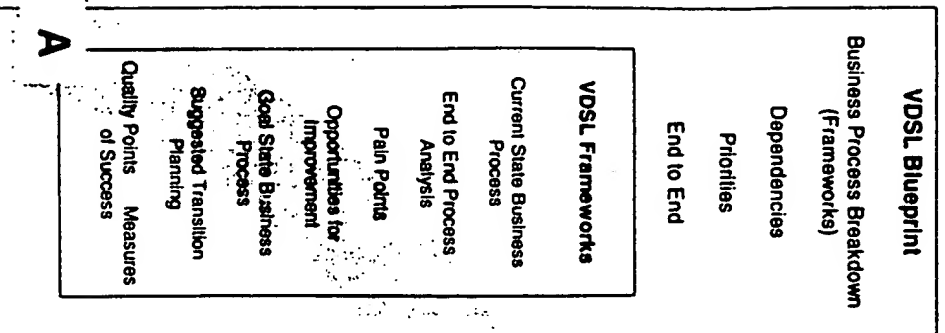
Program Management

Architecture & Strategy

CMM Level 2
Repeatable

CMM Level 3
Defined

CMM Level 4
Managed



VDSL Jeopardy's

- **Fault Management**
 - No contract with vendor
 - Operations roles/responsibilities/processes not defined
- **Testing Phase (Telecordia, NCON)**
 - Need to baseline Release 1 (in progress)
 - Environment setup for testing (run-plan)
 - CIS liaison - need ownership in CIS for VDSL Testing
- **WEA/C business strategy**
- **Activation Strategy**

Program Needs

What can IT Leadership do?

- **Assign accountable program directors in each COE and CIS**
 - Implementation of Integrated Standard Program Office Functions and Processes
 - Facilitate inter-group coordination process
- **Systems Engineers (Inventory, Product Qualification, Homes Passed)**
- **Integration Test Support**
 - Element Management System
 - Integration Test Central Point of Coordination
 - Test Architect to define plan to support tests
 - Resources to execute and project manage testing
- **Implementation Managers**
 - Coordinate with client
 - Hardware Run Plan
 - Interface with Testing
- **Space: Co-locate VDSL AM team- preferably in 1475 Lawrence**

Repair Analysis

Opportunity for Improvement

- A. Optimize data collection and contact time between RSA and customer by 30%-50%
- B. Optimize problem isolation/resolution function through automation between 50%-60%
- C. Eliminate manual pass off required to do telephony testing

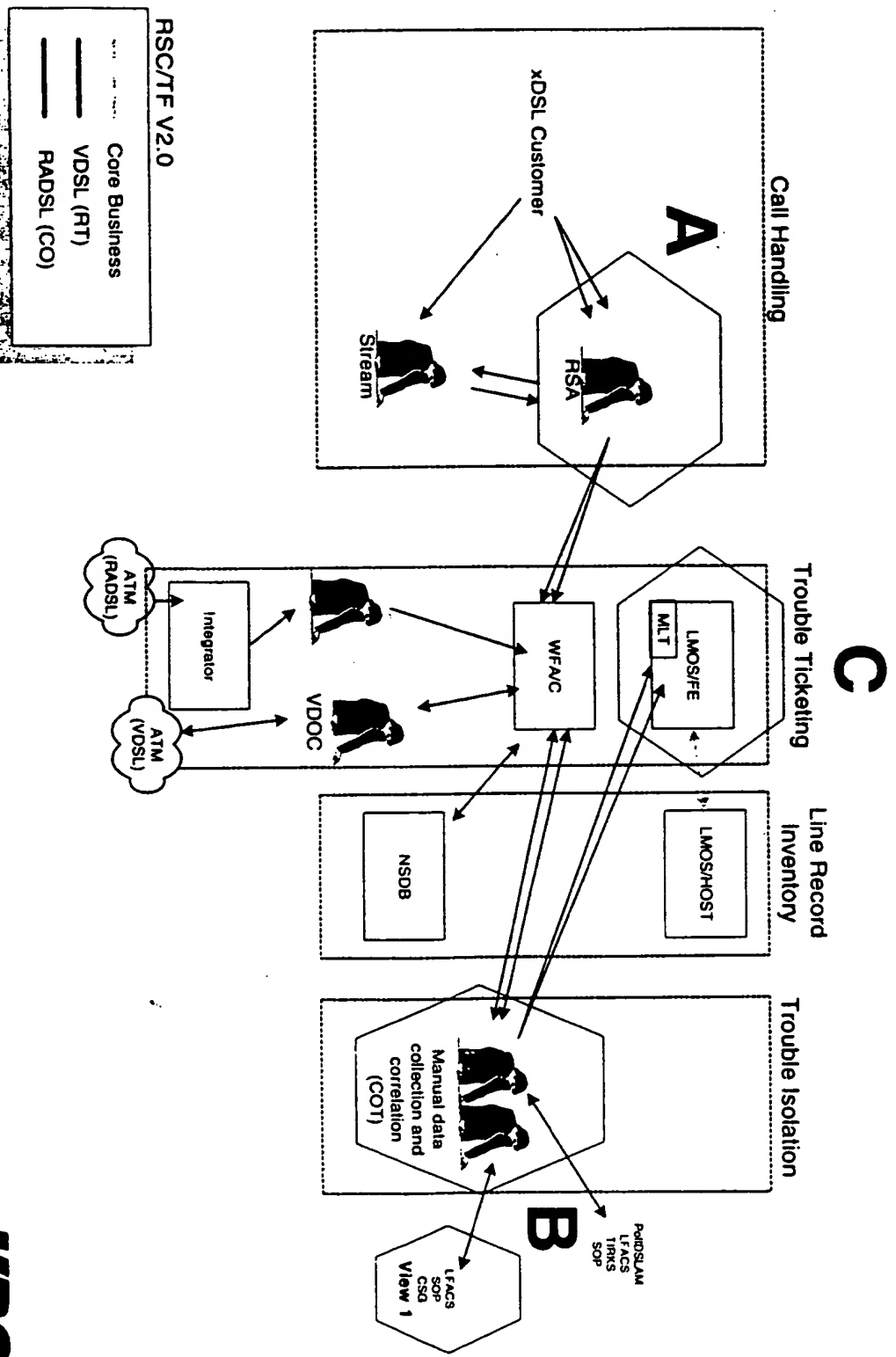
Resolution Strategy

- (1). Deploy RCE to xDSL repair channel to manage contact between customer and RSA
- (2). De-couple MLT from LMOS allowing line tests (Telephony FTTN) to be performed directly from WFA/C
- (3). Automate the collection of relevant data necessary to screen a trouble ticket and introduce fault management capability
- (4). Optimize screening time and reduce reliance on View 1 by developing an end-to-end network transport tool (Poll-USAM)

Impact and Issues

- Need accurate customer line record (NSDB)
- The current repair model is reactive whereas fault management can drive a proactive repair approach

Current Look - Repair

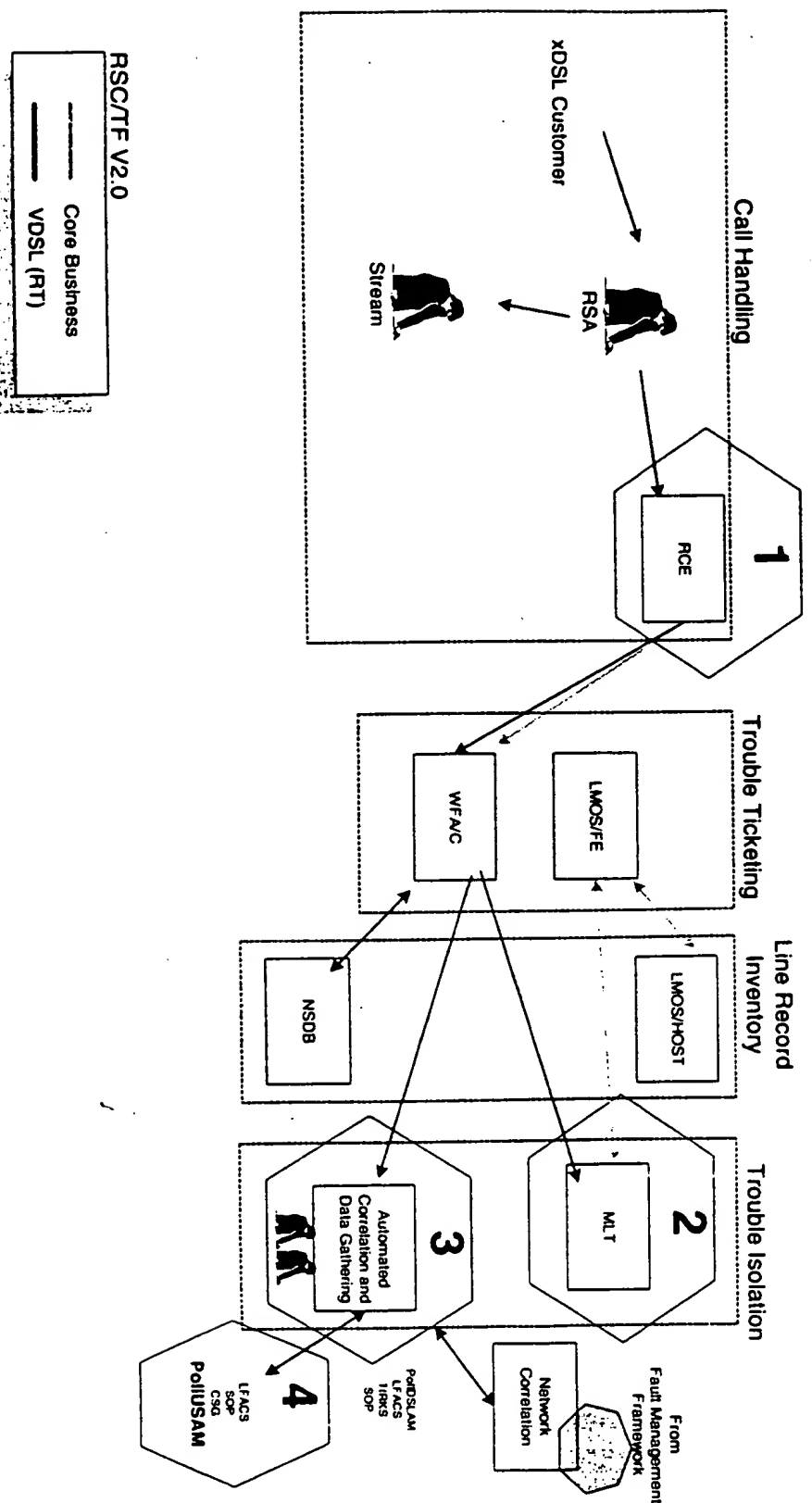


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VDSL

Section II - Featured Area - Detail

Interim Look - Repair



Trouble Ticketing Analysis

Opportunity for Improvement

- A. Introduce trouble ticket correlation capabilities in or around existing trouble ticketing system
- B. Address long term WFA/C viability concerns
- C. All interactions with secure partners are manual
- D. Introduce more custom self serve capabilities

Resolution Strategy

- (1). A Web/TV trouble ticketing system
- (2). A network driven trouble ticketing system (proactive repair model)
- (3). Trouble Ticketing referral system (for other service providers)

Impact and Issues

- *Corp. question:* How much will it cost (\$) to groom WFA/C into the long term strategy vs building an entirely new trouble ticketing system for xDSL?
- WFA/C can overcome projected volume limitations in the short term (2Q00-2Q01) via hardware upgrades. (see WFA/C Strategy Grid & Utilization Projection in Appendix B & C respectively).

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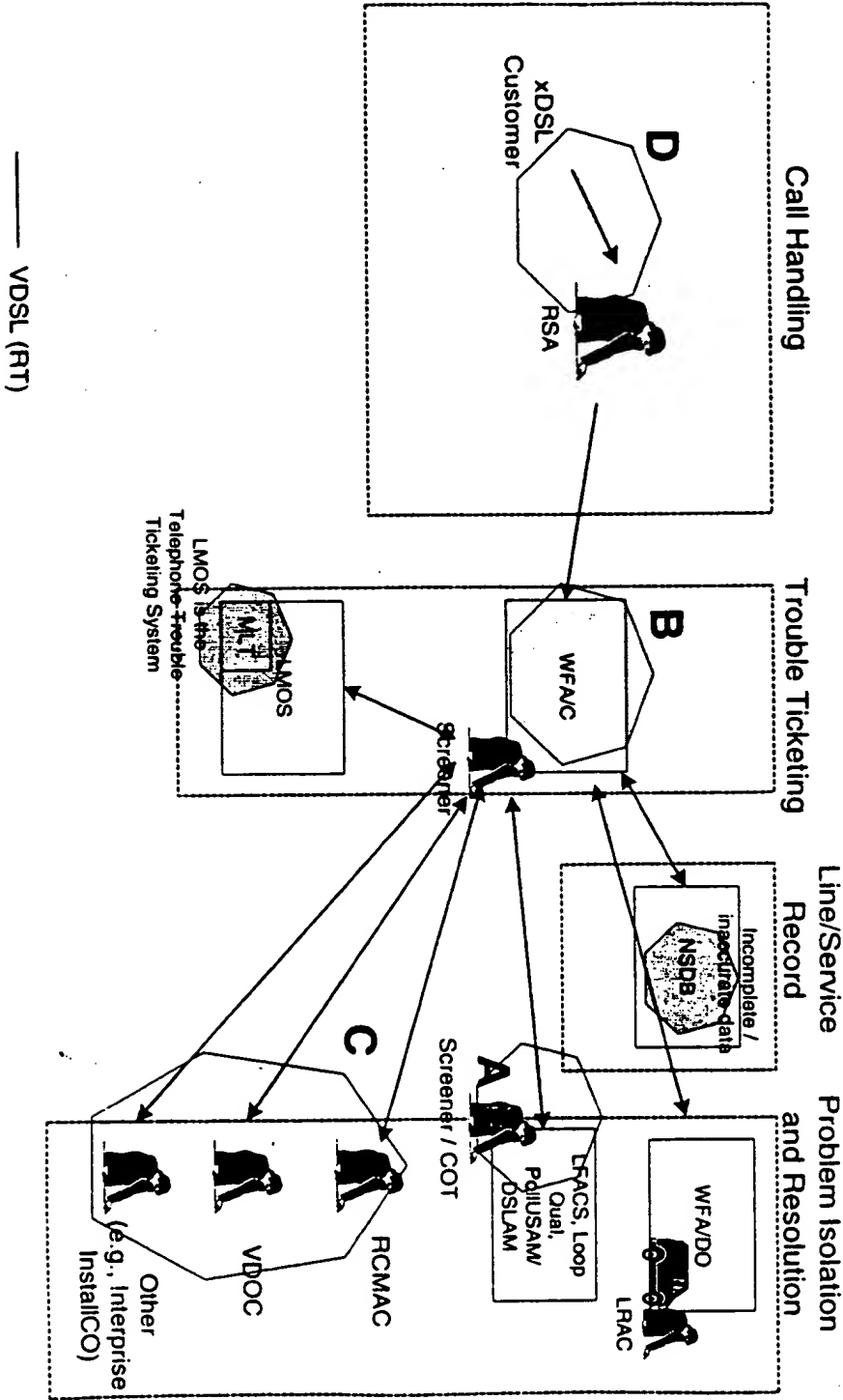
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Reviewed by: [redacted]
Rich [redacted]
Tom [redacted]

Section II - Featured Area - Detail

Current Look - Trouble Ticketing



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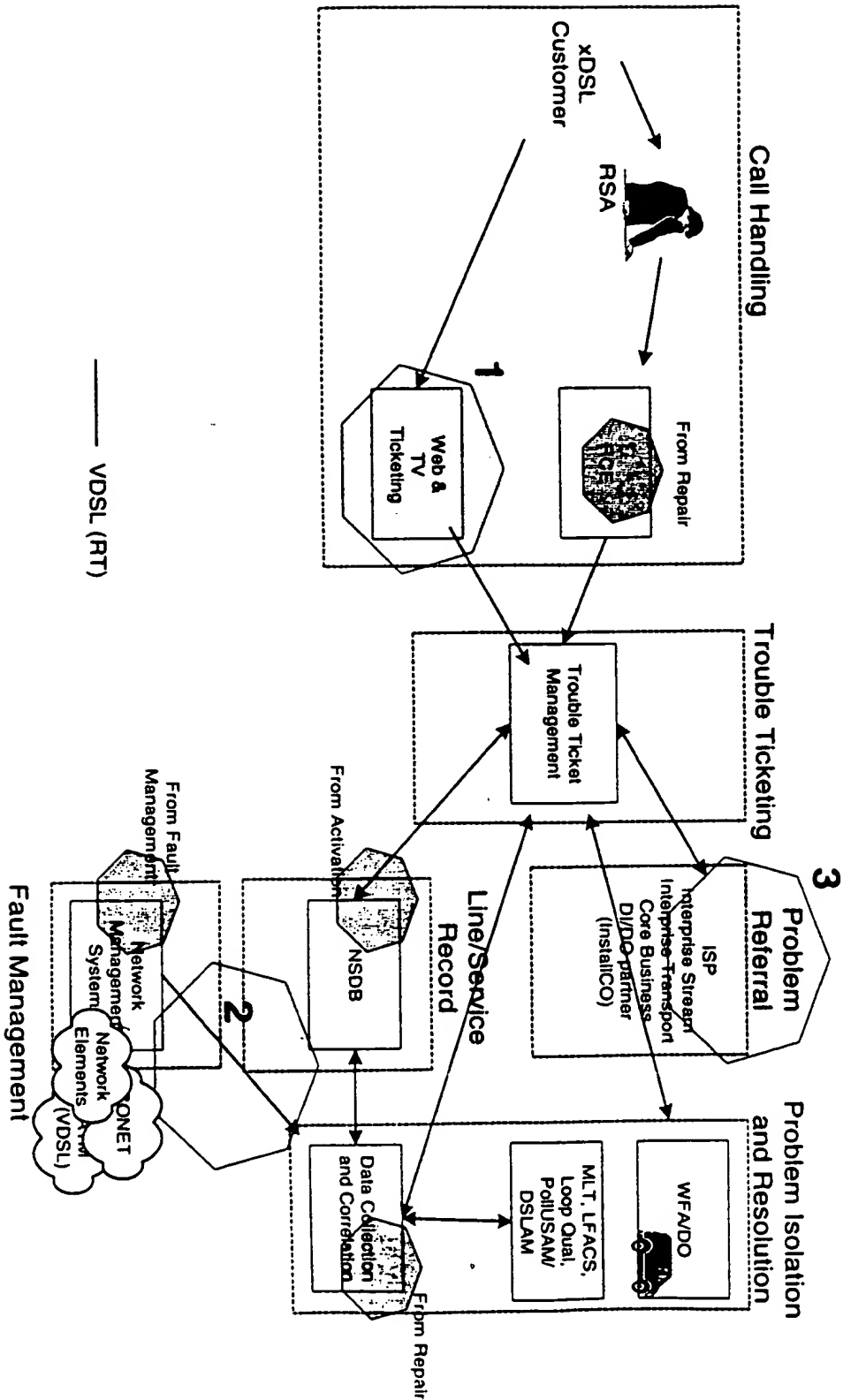
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Section II - Featured Area - Detail

1H02 Look - Trouble Ticketing



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Hexagon 7/20/06
Rich Carroll
Tim Lippman

Order Entry Analysis

Case 1: VDSL Service Center - Opportunity for Improvement

- A. Reduce time to take a service order
- B. Enhance capability to meet customer commitments
- C. Simplify the order entry process

Case 2 Mass Market - Opportunity for Improvement

- A. Add capability to take VDSL order in Mass Market Channel

Section II - Featured Area - (Case 1: VDSL Service Center)

Current Look Order Entry

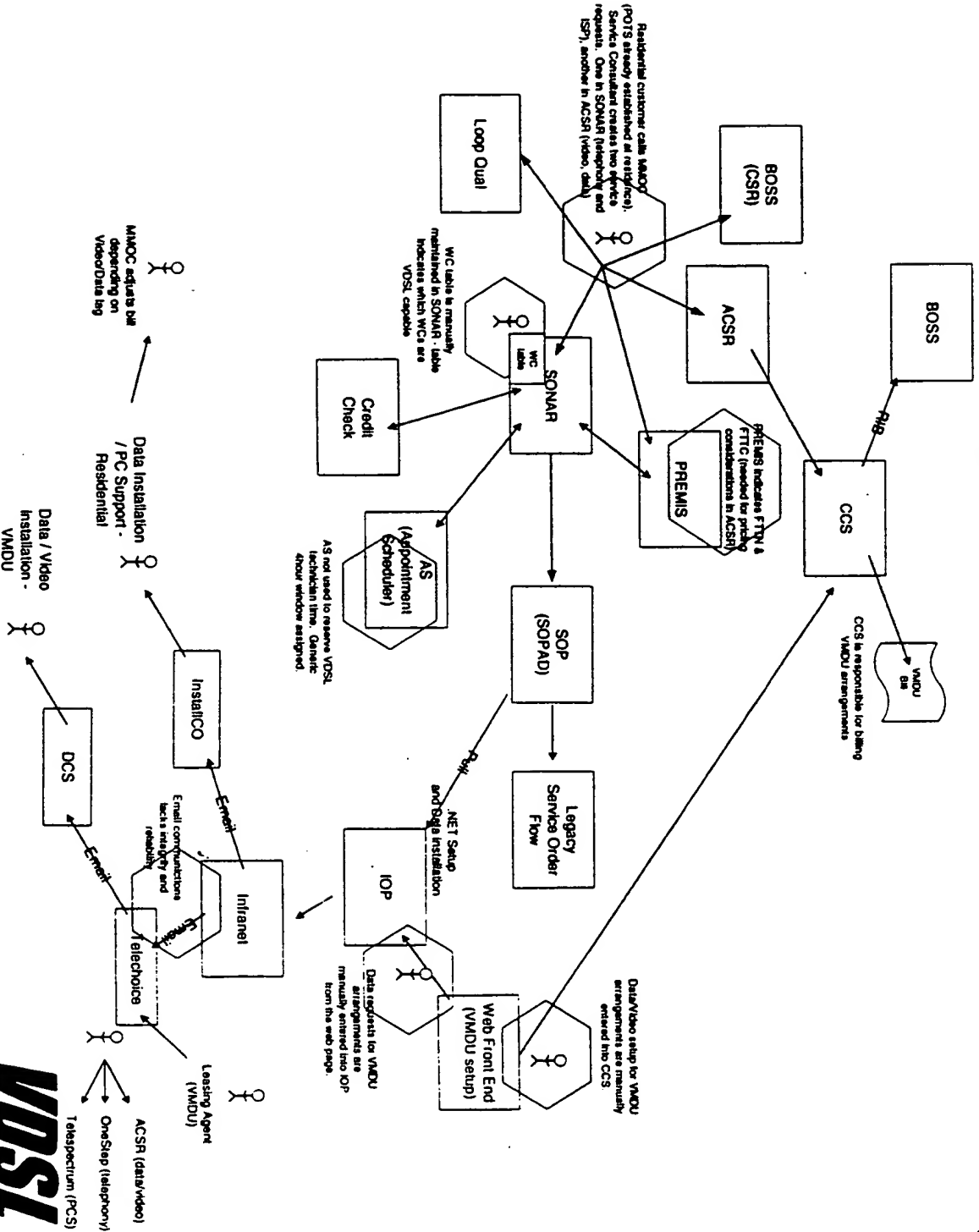
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RSC/LS
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(2) Loop Qualifier will now be responsible for indicating if a customer is serviced by a franchise and in either FTTN or FTTC configuration. This data will no longer be maintained by PREMIS. Loop Qualifier will also update the WCTABLE in SONAR.

- (3) Consulting+ will be added to mitigate the need for the Service Consultant to access multiple systems necessary to create two service requests for a VDSL service.
- (4) An interface from Consulting+ to ACSR is uncommitted.

(1) Service order requires (default) Video Package and actual Data Package codes as these codes are required for NCON/Delivery to complete initial activation of Video and/or Data service.

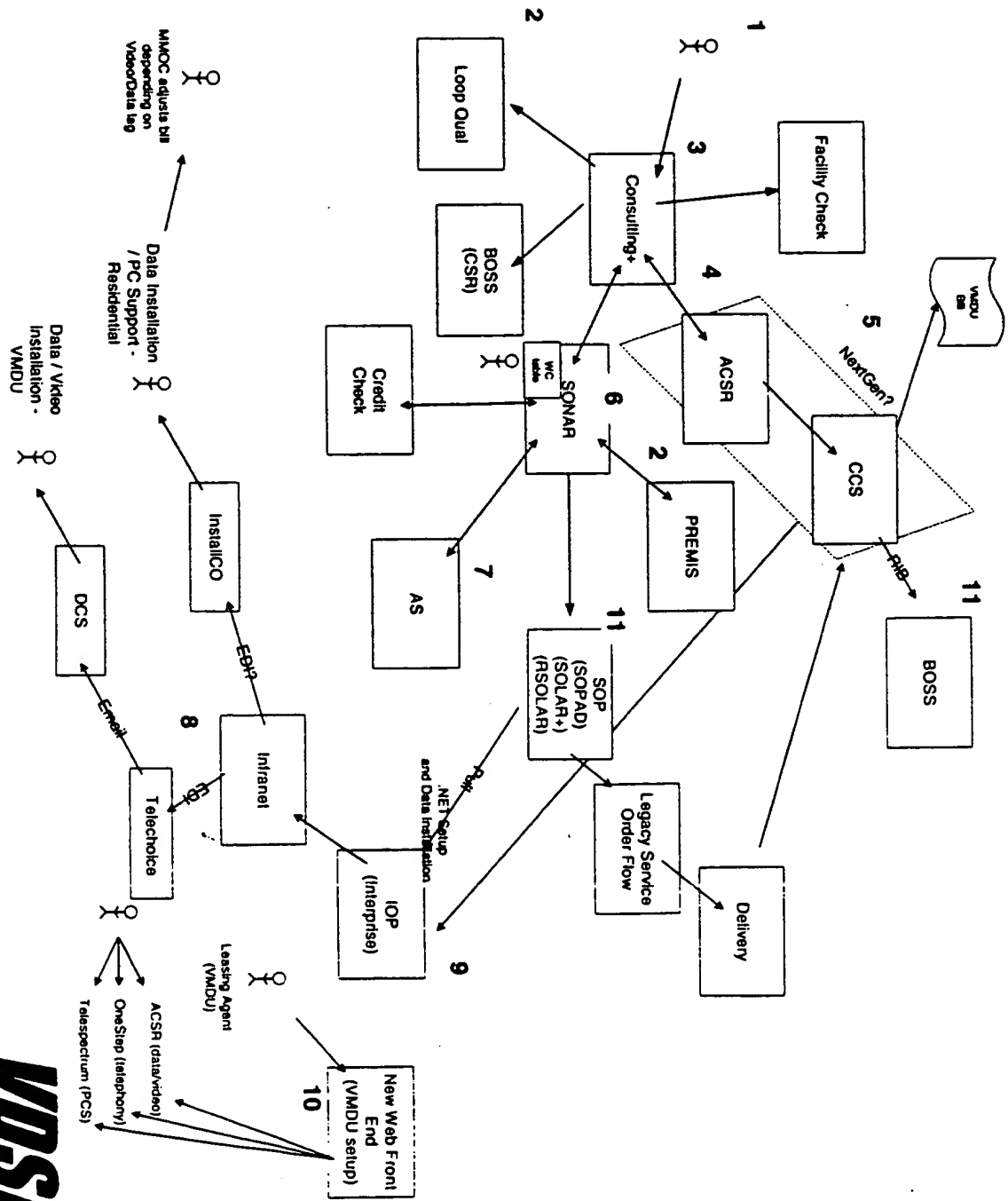
- (7) Appointment Scheduler is being enhanced to include VDSL
- (8) The existing Email message from Infranet to Telechoice will be replace by and EDI contract. (Interprise SOW)
- (9) IOP will be modified to receive .NET requests for VMDU customers automatically from CCS. (CSG SOW)
- (10) The current Web Front End for VMDU use will be modified and enhanced to allow direct access from Leasing Agents and Leasing agents to issue orders to ACSR, OneStep, and Telespectrum. (CSG SOW)

(1) Service Order requires Video and Data Package codes as these codes are required for NCON/Delivery to complete initial activation of Video and/or Data service.

- (5) A potential move from CSG's ACSR/CCS application to CSG's NextGen application will NOT be pursued in 2000.
- (6) A new Service USOC is being requested in an effort to clearly distinguish a VDSL customer from a POTS customer (i.e., a move from IFR/IFB to a unique VDSL USOC). A feasibility analysis must be performed to determine if this is the right solution based on understood problem areas.
- (11) All SOPs must be VDSL capable. RIB must be available to all BOSS regions from CCS.
- VDSL**

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Section II - Featured Area Case #1 VDSL Service Center
Interim Look Order Entry



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Order Entry Analysis

Ability to take VDSL Order in Mass Market Channel

12. Facility Check must be enhanced to receive Loop Qualifier Data by TN and Address.
13. Eleven New Video/Data Package USOCs must be added to the service order process.
14. Service order requires Video and Data Package codes for each USOC in #13 - Use Default for Video.
15. Upon request of a CSR from BOSS, Loop Qualifier data for that customer must be displayed.
16. A Mechanism is needed to feed ACSR/CCS of a service requests that was taken in the mass market channel.



Opportunity for Improvement

Inventory Analysis

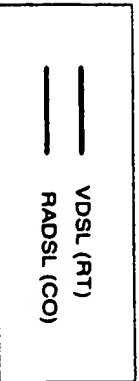
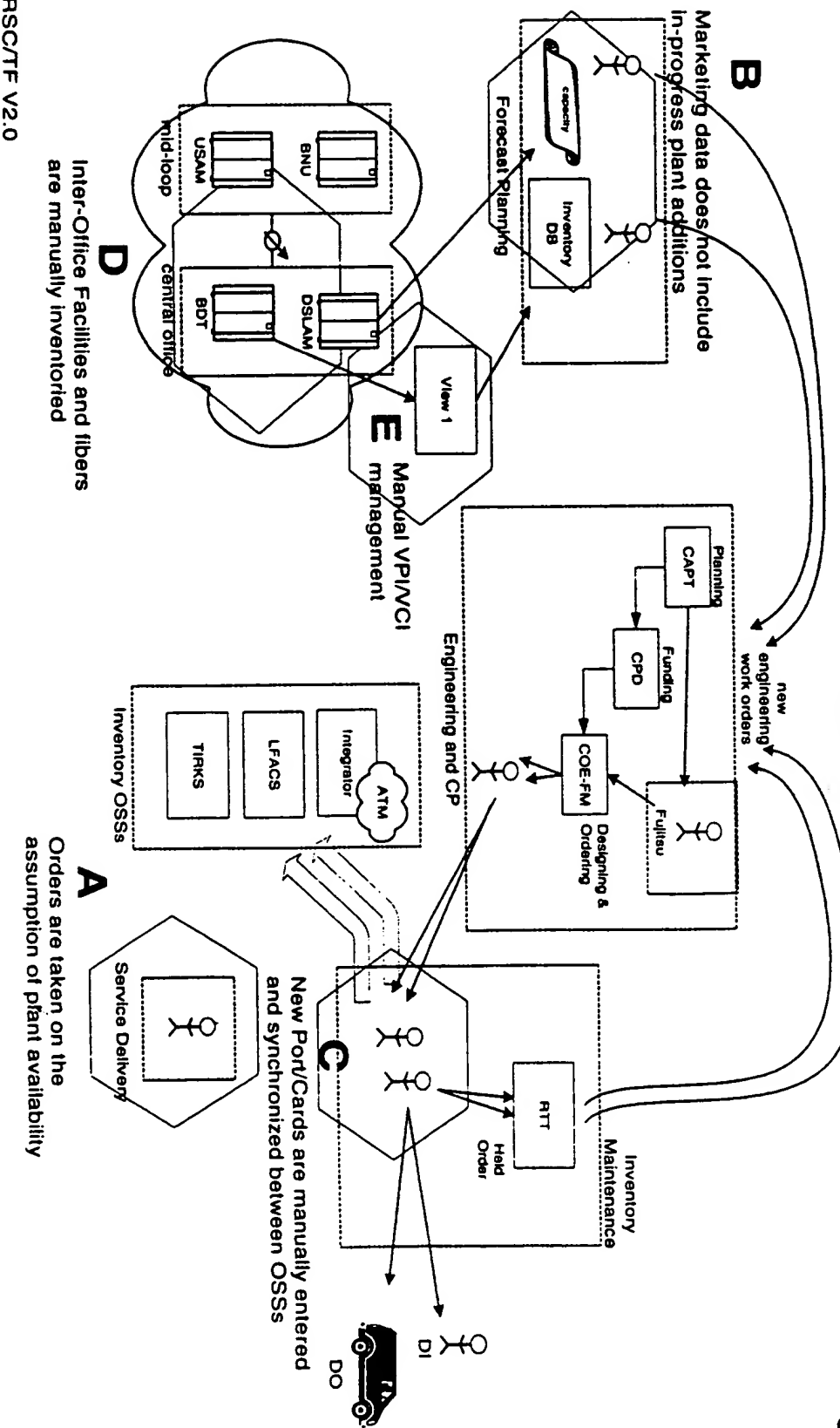
- A. Orders are taken on the assumption of inventory resulting in held orders and missed commitments when there is no available inventory
- B. Inventory data used for market forecasting is incomplete
- C. Updates and synchronization of RT cards/ports between systems are manual
- D. Inventory management of BDT/USAM/BNU/Fiber components is manual
- E. Inventory Management of VCI/VPI pools is a manual function
- F. CPE fulfillment strategy - to be resolved

Resolution Strategy - Interim

- (1). Loop Qualification (Product Qualification framework) will present the service consultant with a view of available inventory
- (2). Planned inventory will be incorporated into the marketing forecast inventory data
- (3). NCON/Delivery will be used to synchronize the network element view of used and available for use inventory with LFACS.
- (4). Automate the inventory management of BDT/USAM/BNU and fiber system - TBD
- (5). Automate inventory management of VCI/VPI pools with Integrator

Section II - Featured Area - Detail

Current Look Inventory



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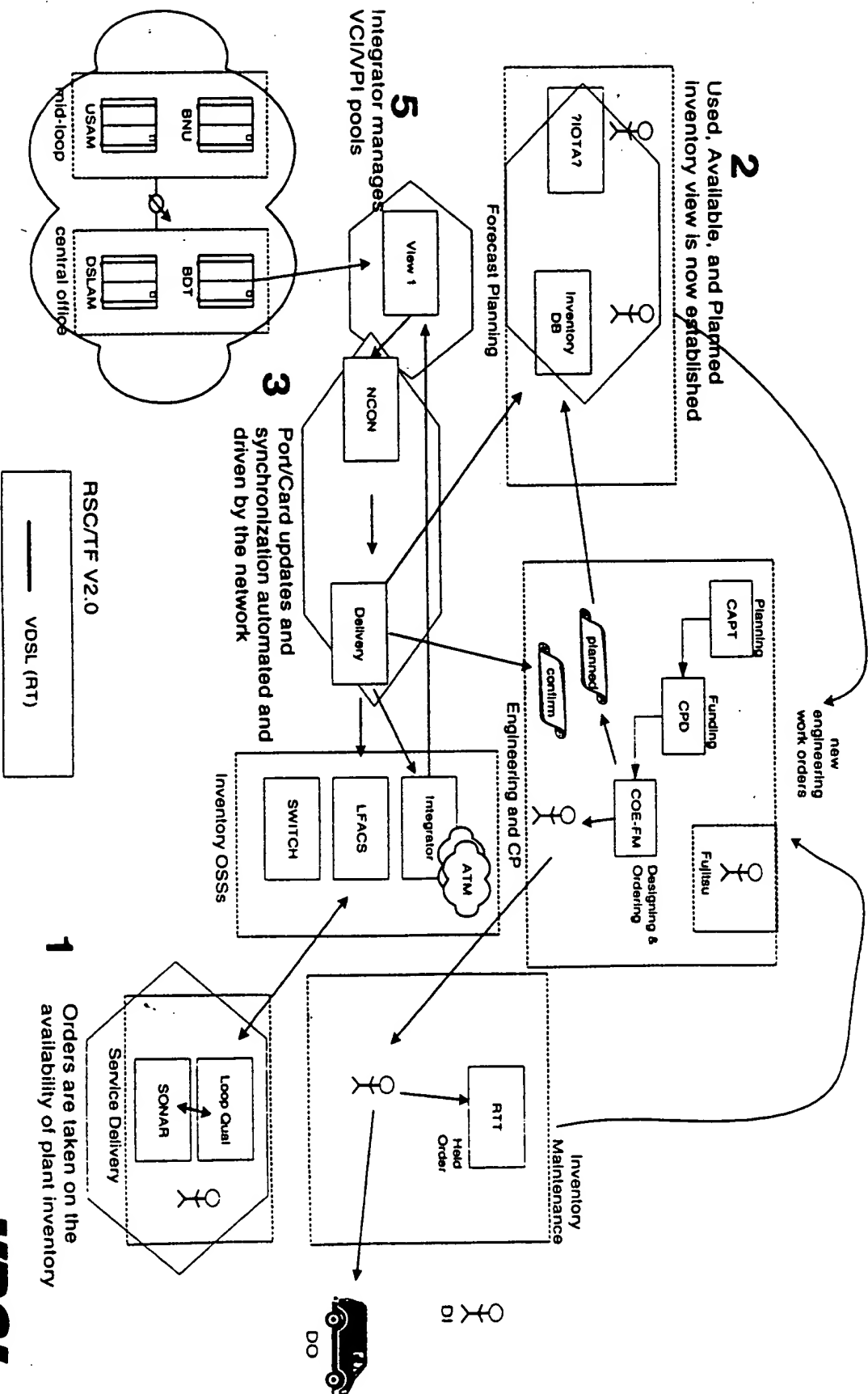
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Rich Corcoran
Tim Fugerson

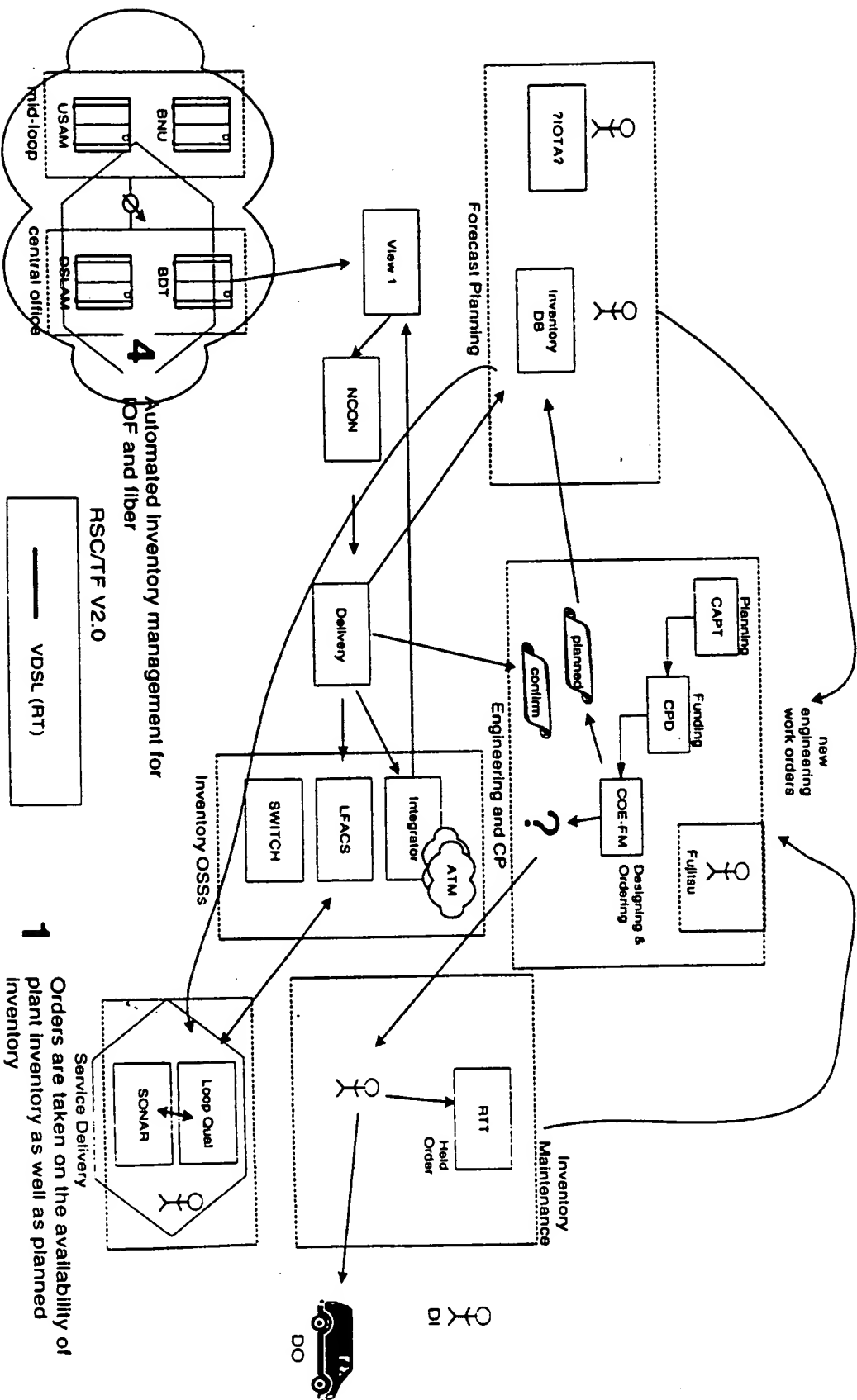
Section II - Featured Area - Detail

Interim Look - Inventory Management



Section II - Featured Area - Detail

1H02 Look - Inventory Management



Orders are taken on the availability of plant inventory as well as planned inventory

Section II - Featured Area - Detail

Current Look - Activation/Provisioning

Opportunity for Improvement

- Reduce VDSL installation costs due to the manual efforts (estimated at about \$40 per order) required to place the port, card, onu, and MACID into ACSR/CCS and prepare the activation message from CCS to View 2.
- Lack of a single system view is affecting customer service (multiple system, different truths, pass-offs) - *unable to assess financial impact*, and increasing the time and complexity of the repair screening function, estimated at about \$4.50 per ticket.

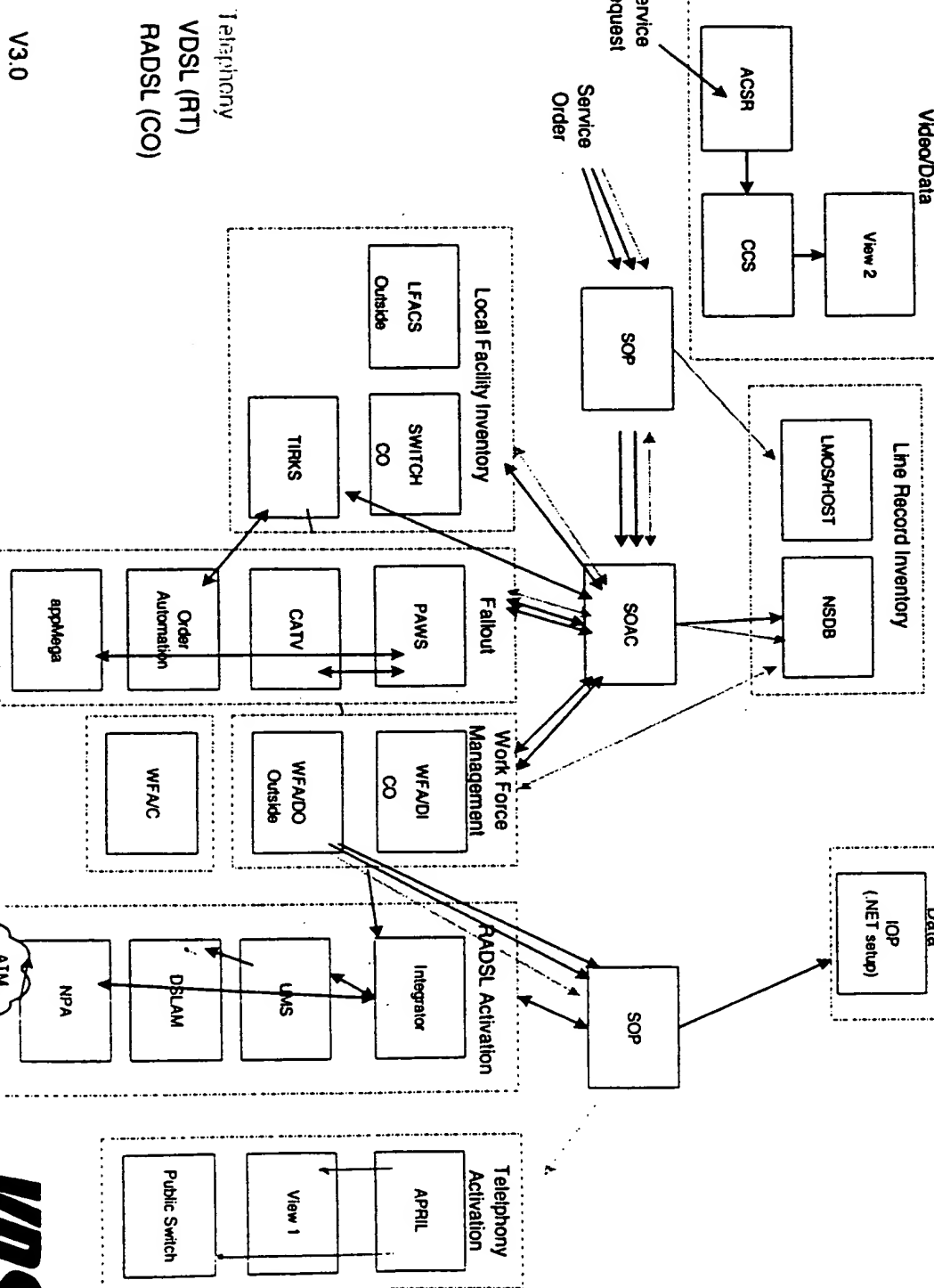
- Address inventory inconsistencies between LFACS, CCS, and View 2 resulting from a failed add CPE message. An estimated \$27 saving for every order requiring and inventory change.

Resolution Strategy - Interim

- Deploy NCON/Delivery

Impact and Issues

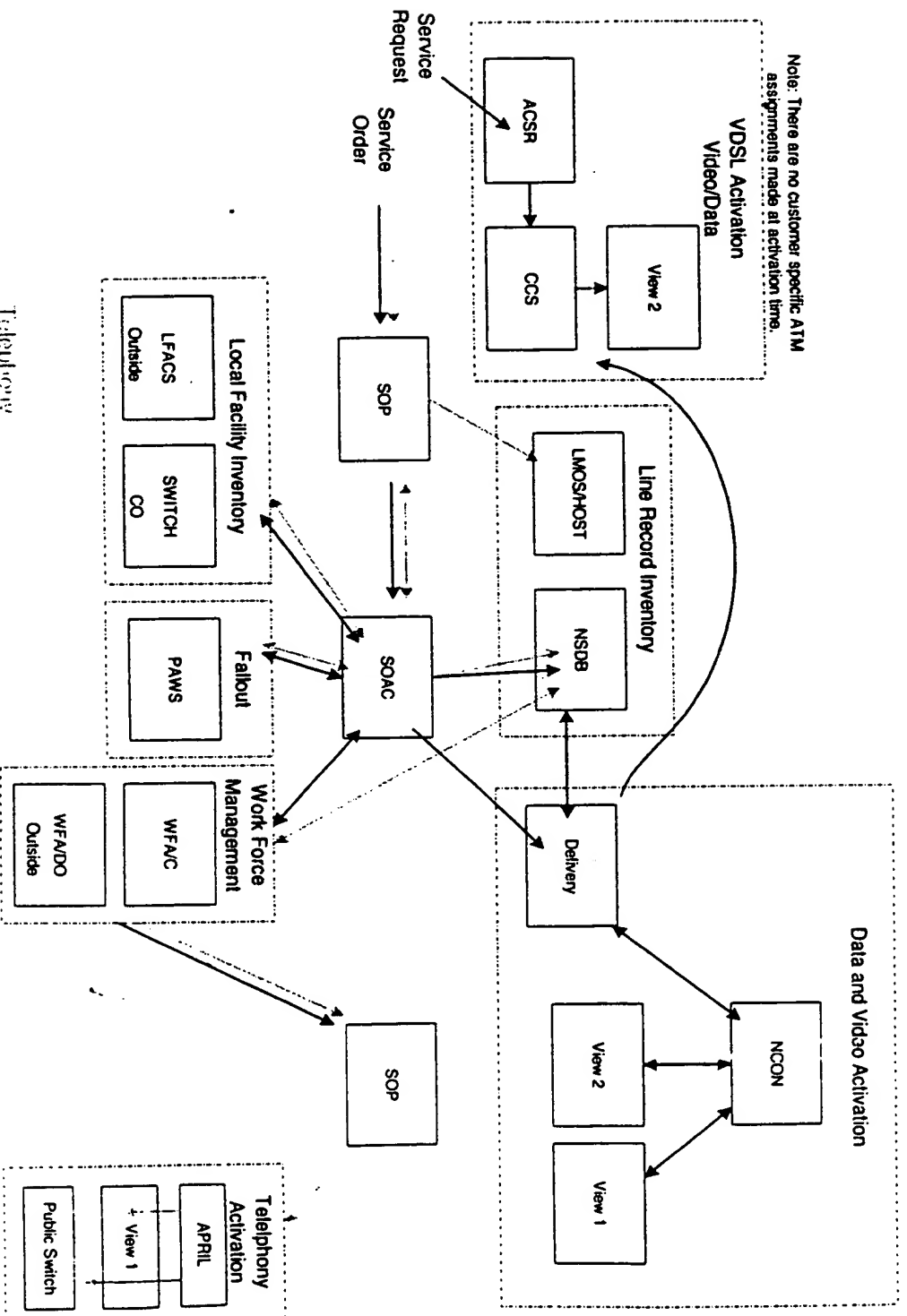
- Timeframes and schedules necessary to develop interfaces to CCS/NextGen and NCL must be negotiated



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Section II - Featured Area - Detail Interim Look - Activation/Provisioning



V3.0

Telephony
VDSL (RT)

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VDSL

Bozeman, MT
Public Good
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Section II - Featured Area - Detail

Detailed Walk Through - Activation/Provisioning

Benefits of Approach

- Estimated \$40 savings per order as a result of self discovery of the MACID
- Estimated \$27 savings per order for each repair requiring an inventory re-assignment
- Estimated \$4.50 savings per repair ticketing taken.
- Two way interface to View 2 with activation acknowledgements and error messages being sent directly to the LPC through PAWS
- Automated close outs of CCS orders: Installation, Repair (physical inventory), and delete
- Automated update/synchronization of TN changes
- Open, standard interface/protocol to View 2
- Automated synchronization of physical inventory
- Achievable in 2-3Q00

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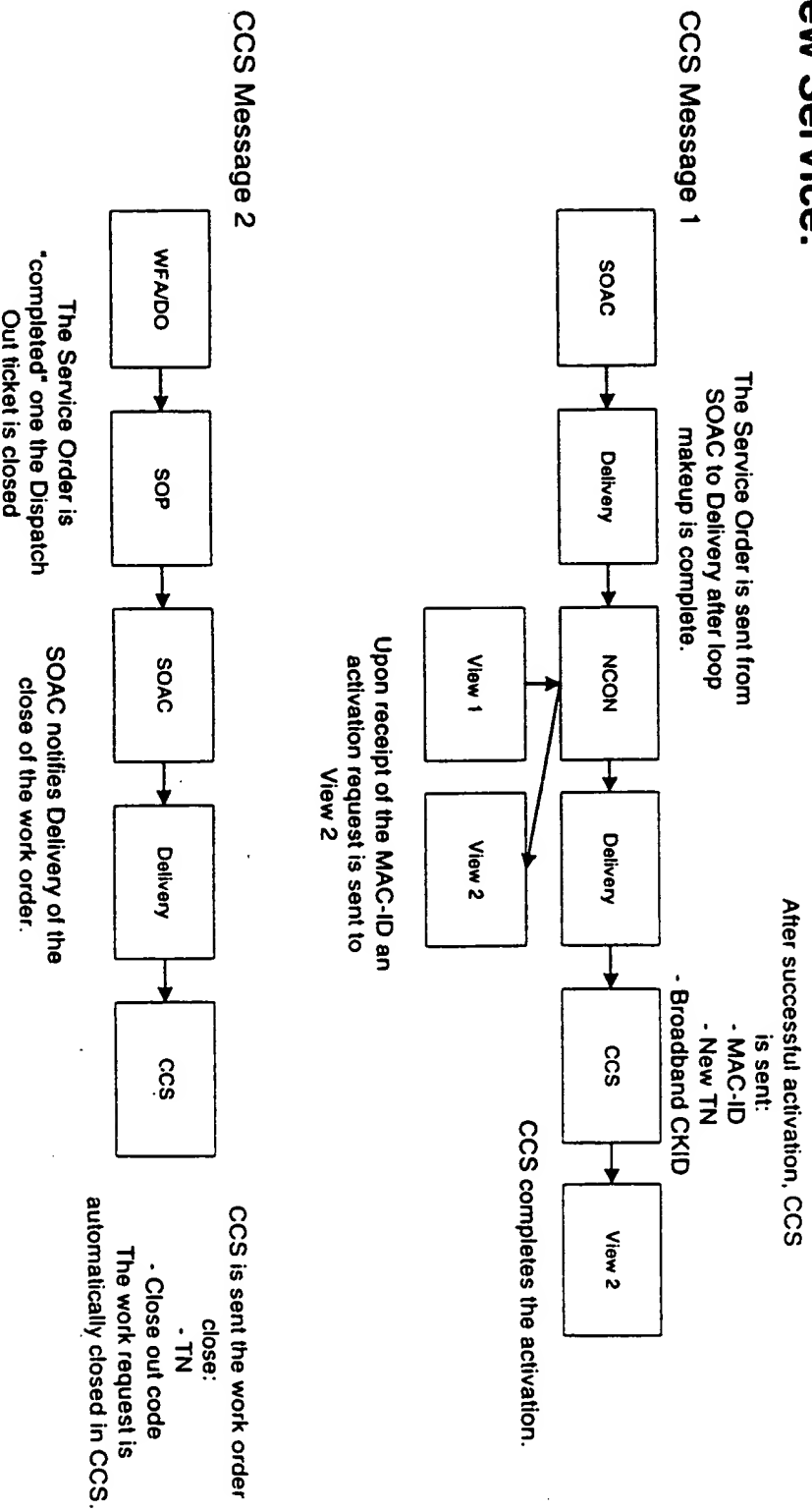
WDSL

Rockwell Strategic
High Growth
The Program

Section II - Featured Area - Detail

Detailed Walk Through - Activation/Provisioning

New Service:



DRAFT 12/15/99 V1.5

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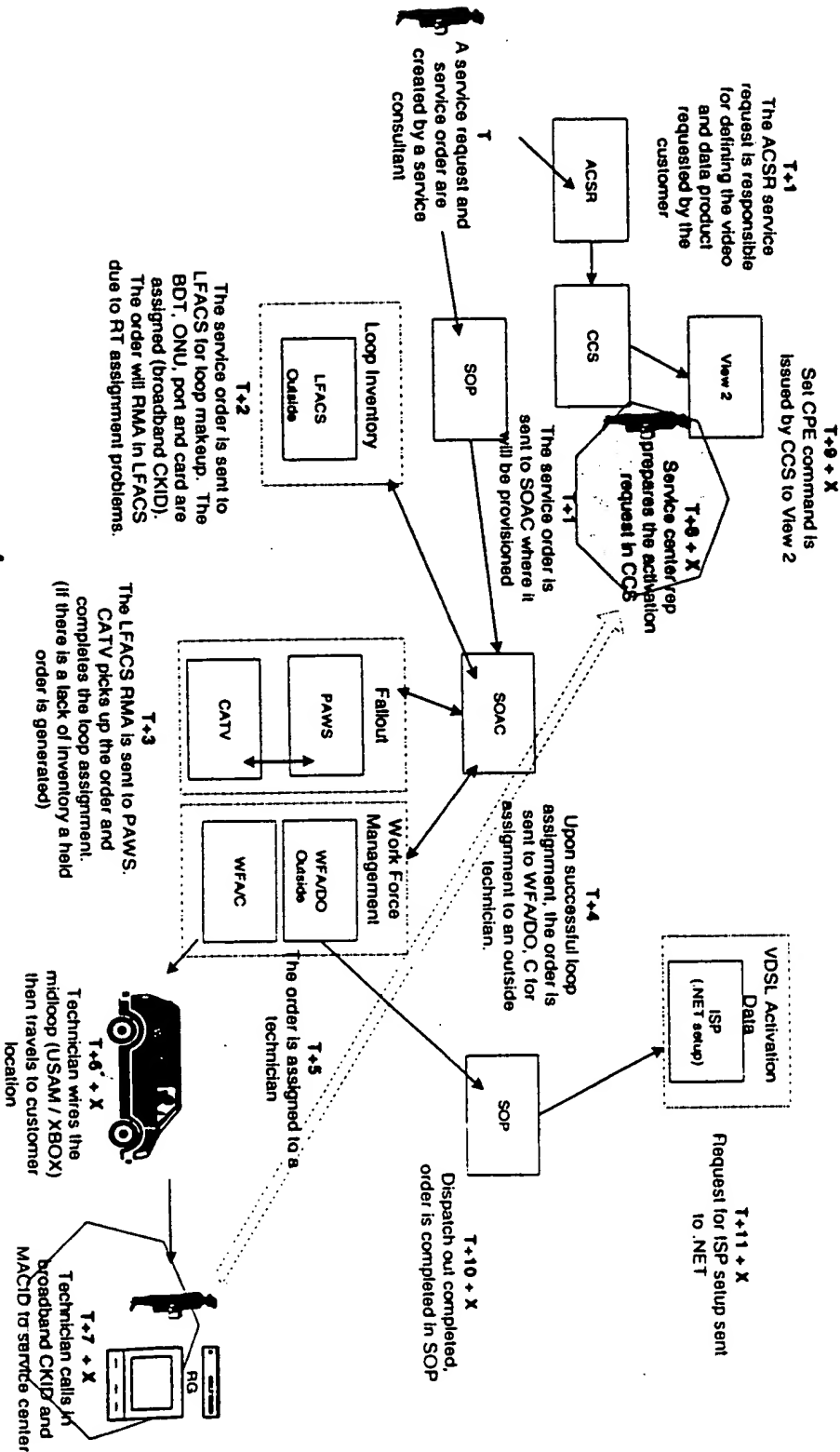
WDSL

Hoxanna Stewart-Jr
Rich Cerami
Tim Fitzgibbon

Section II - Featured Area - Detail

Detailed Walk Through - Activation/Provisioning

Current State
New VDSL Service



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VDSL

Boyan Gorench
Rich Cerami
Tim Fournier

Section II - Featured Area - Detail

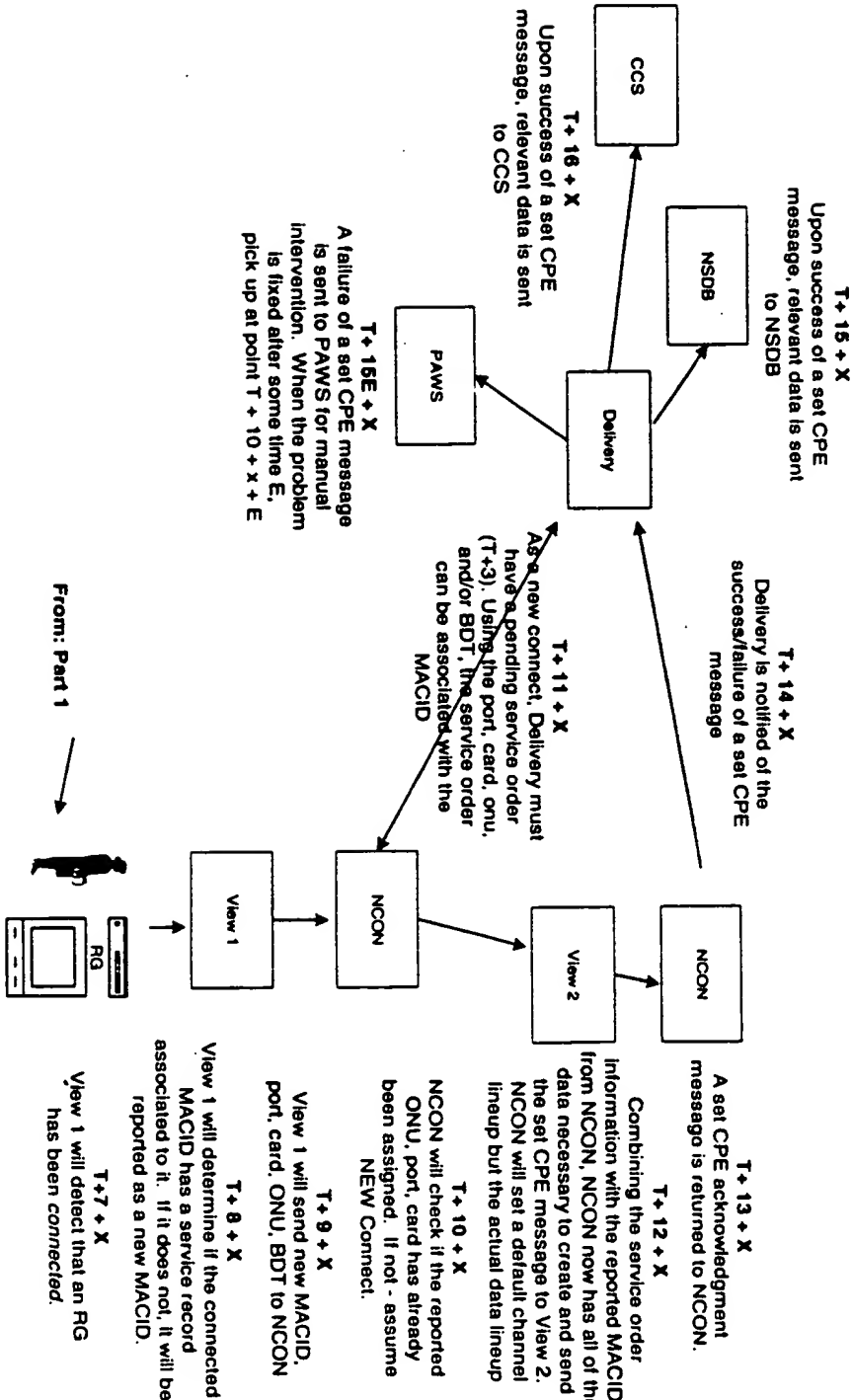
Detailed Walk Through - Activation/Provisioning

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Section II - Featured Area - Detail
Detailed Walk Through - Activation/Provisioning

Proposed State
New VDSL Service
Part 2



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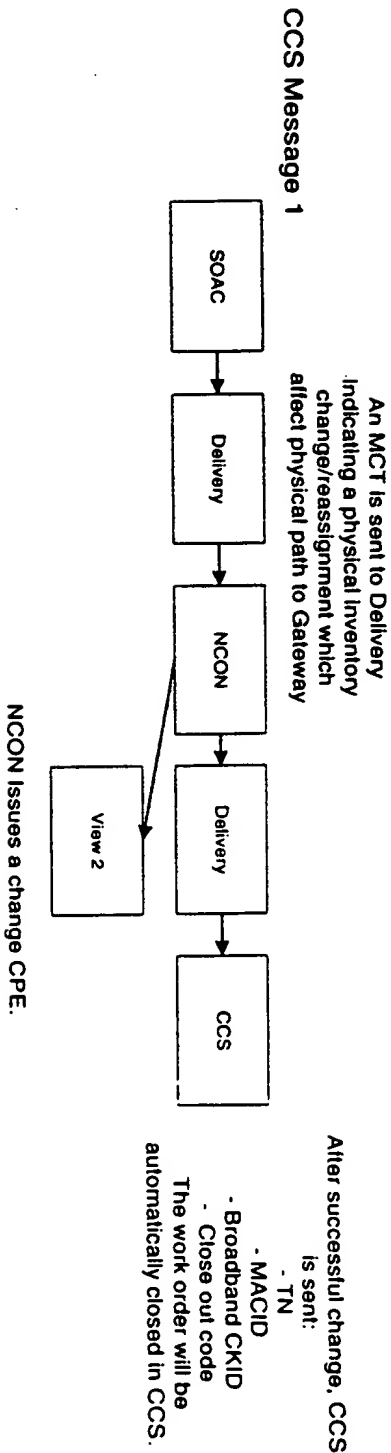
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Proximus Services, Inc.
Rich Cerami
Tim Thompson

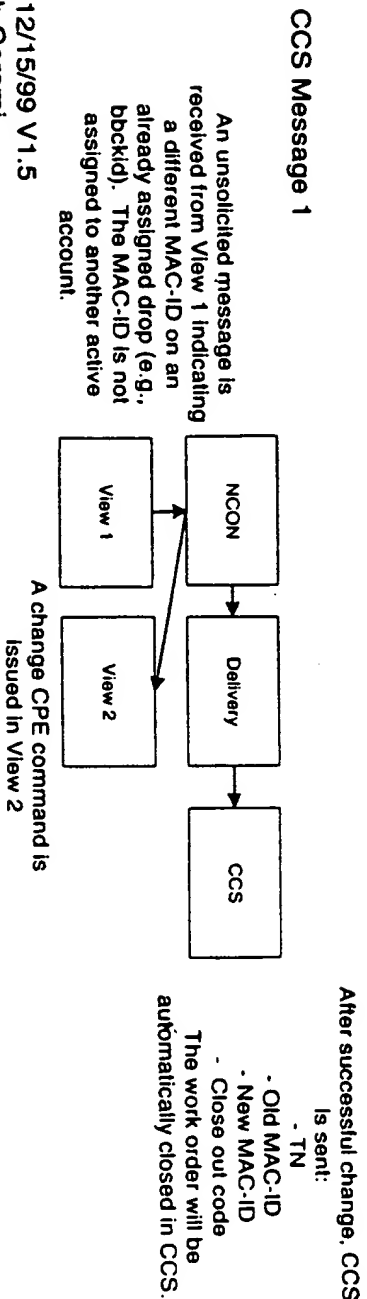
Section II - Featured Area - Detail

Detailed Walk Through - Activation/Provisioning

VDSL Physical Inventory Repair:



VDSL MAC-ID Replacement:



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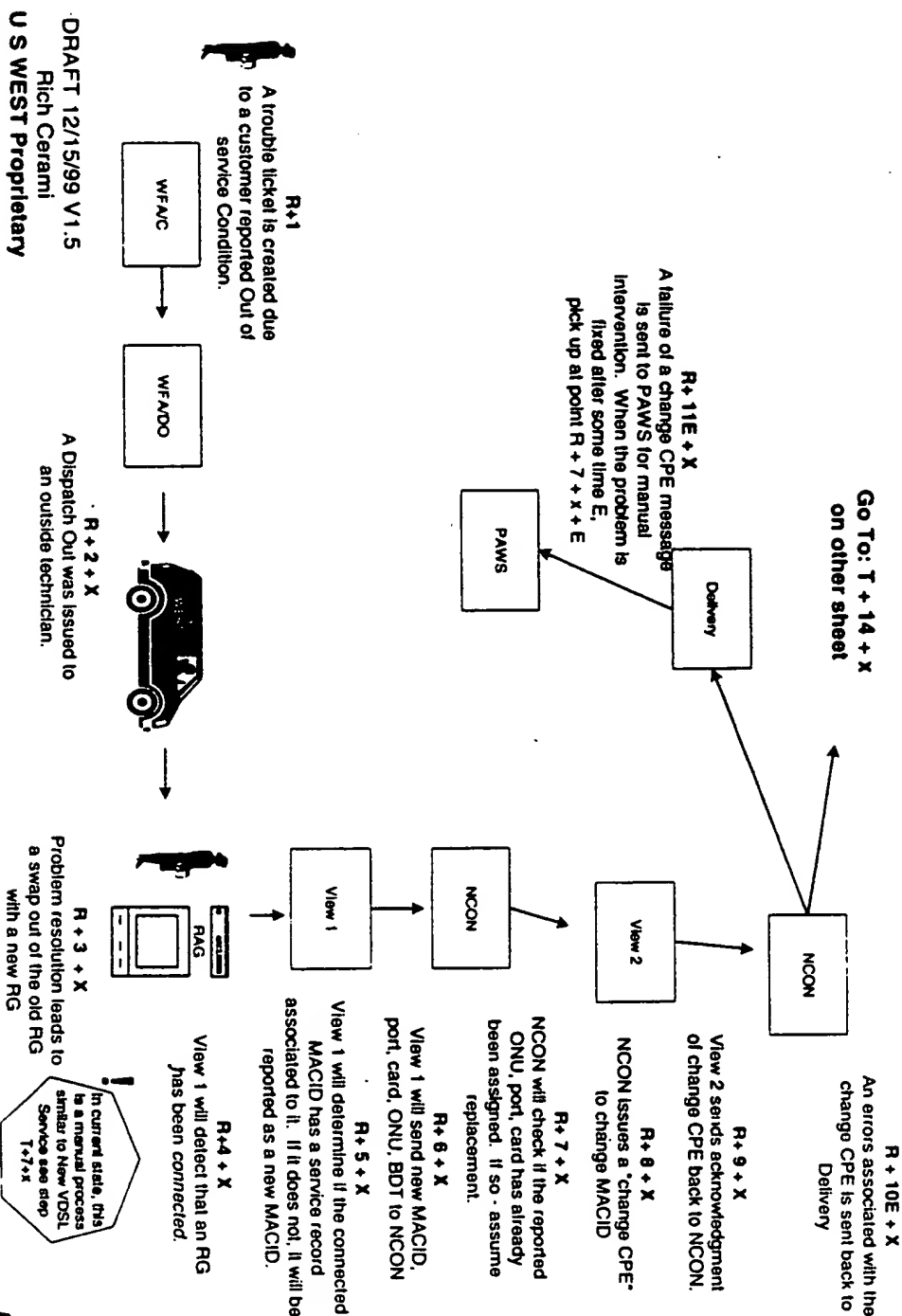
VDSL

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1999

Section II - Featured Area - Detail

Detailed Walk Through - Activation/Provisioning

Proposed State
Repair: Replace RG/MACID



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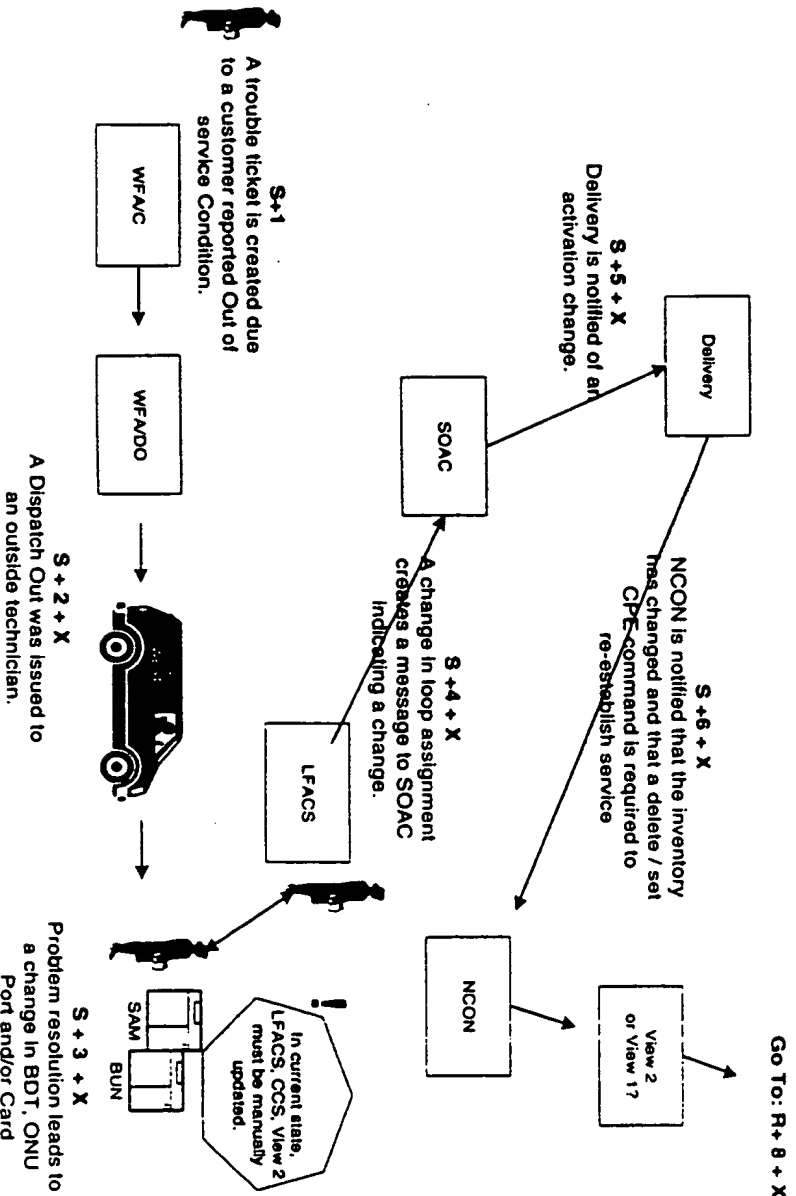
USWEST

Roxanna Stearns
Rich Cerami
Tim Flannery

Section II - Featured Area - Detail

Detailed Walk Through - Activation/Provisioning

Proposed State
Repair: ONU, port, card, BDT



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Rich Cerami
Tom Fugere

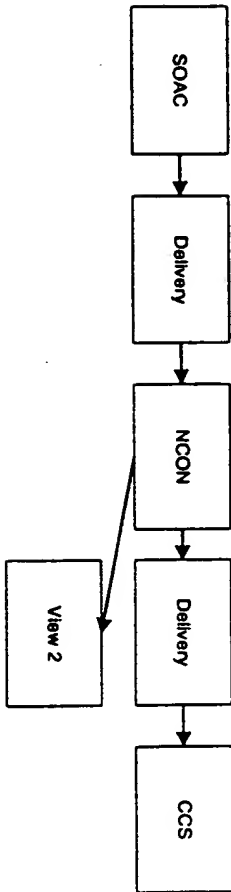
Section II - Featured Area - Detail

Detailed Walk Through - Activation/Provisioning

VDSL Service Disconnect:

CCS Message 1

The Service Order is sent from SOAC to Delivery after loop has been torn down.



After successful deactivation, CCS is sent: - TN

This data will not be used to close the CCS work order, only to status the work order. The CCS work order will be closed manually once the CPE has been received.

NCON disconnects service in the Network element

TN Change Number:

CCS Message 1

The Service Order is sent from SOAC to Delivery indicating a TN change.



After successful change, CCS is sent:

- New TN
- Old TN

This data will be used for CCS to update its records.

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VDSL

Document Title: VDSL
File Name: VDSL
Print Date: 12/15/99

Section II - Featured Area - Detail

Product Ordering Assurance Analysis

Opportunity for Improvement

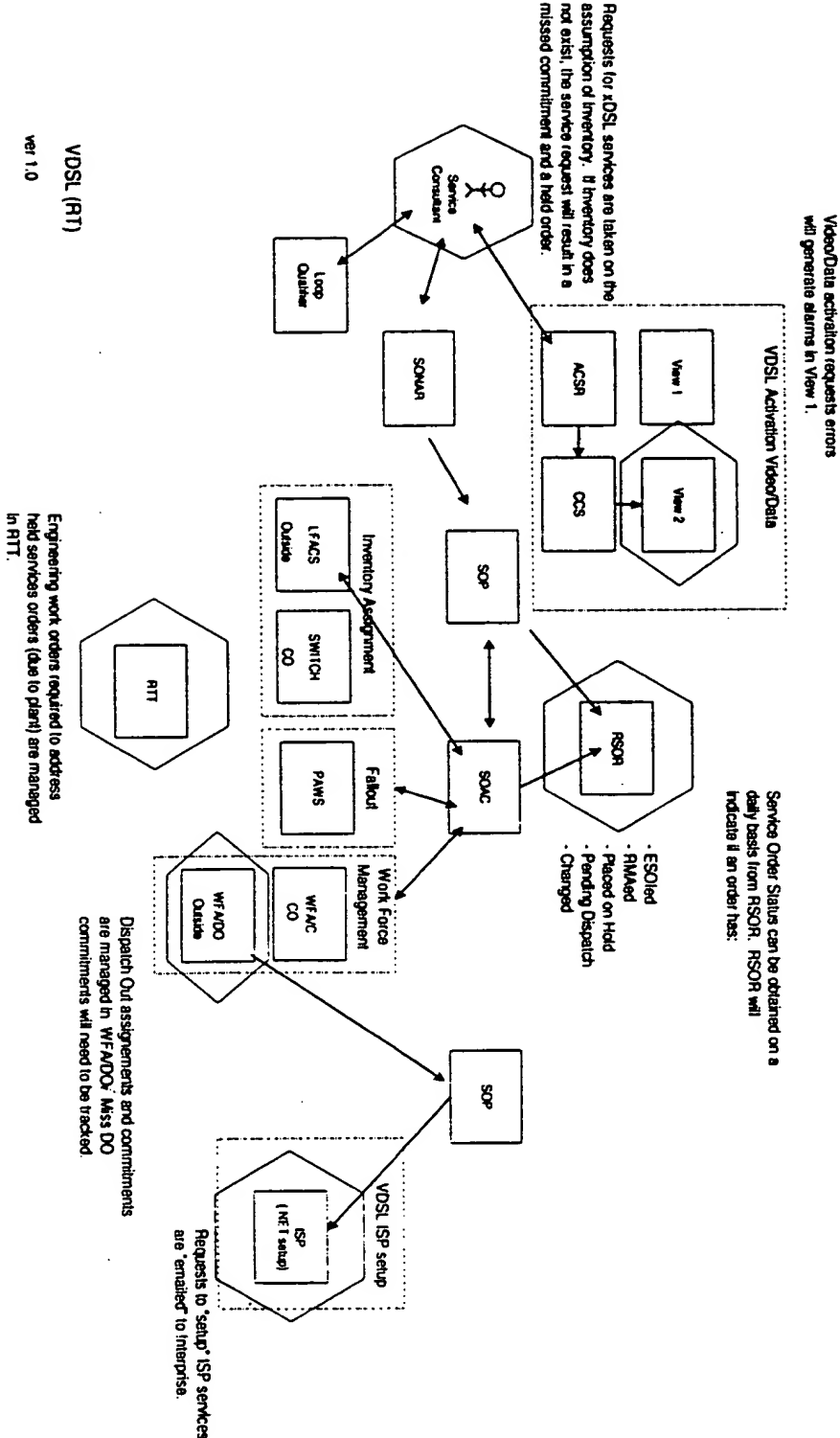
- With all of the disparate processes and organizations involved with providing VDSL service, product ordering assurance is manually intensive to track and reactive, at best.

Resolution Strategy - 2Q/3Q00

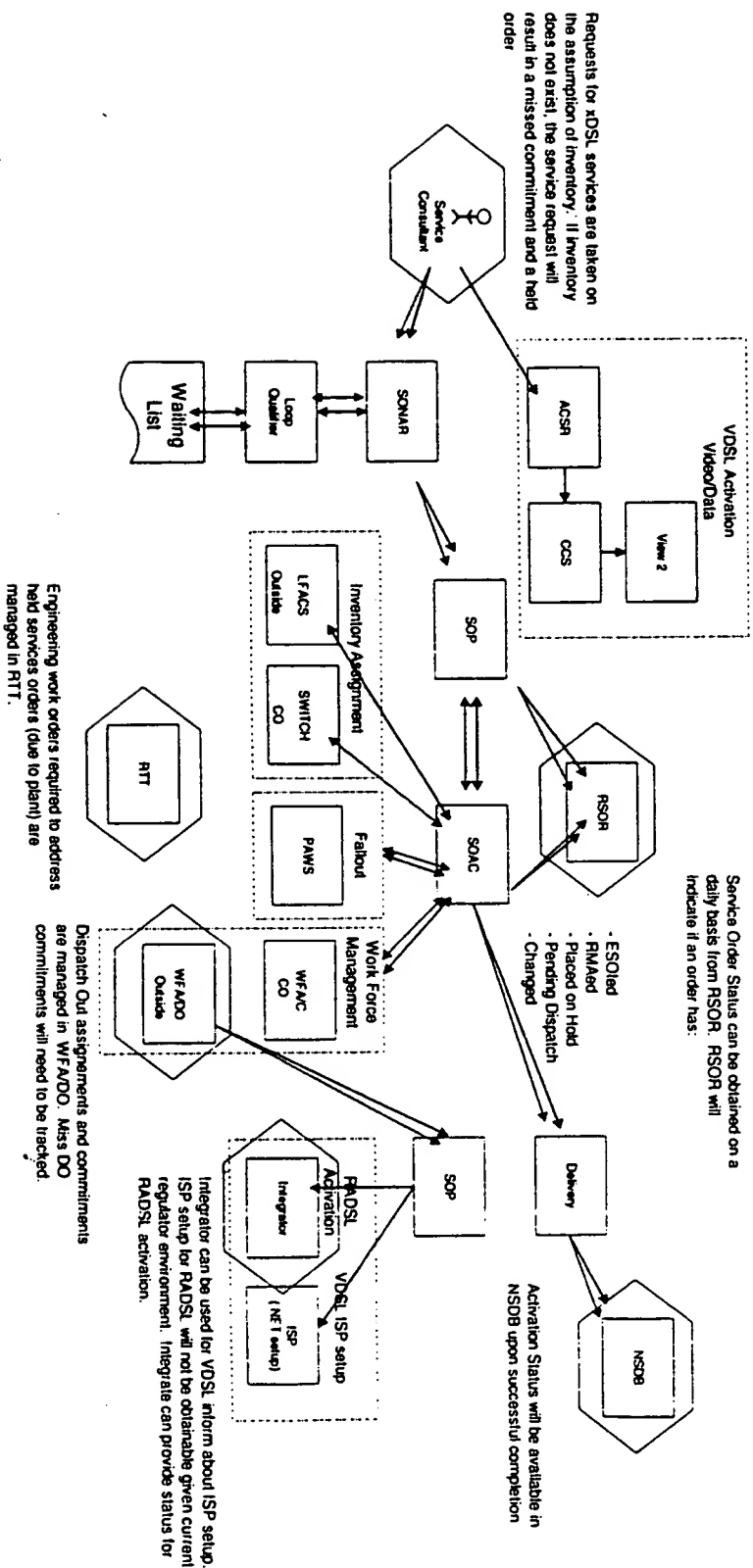
- Collect all relevant data necessary to track the health of a request (or change) of service and proactively report and resolve any order in jeopardy of missing a customer commitment.

Section II - Featured Area - Detail

Current Look Product Ordering Assurance



2-3Q00 Look Product Ordering Assurance



VDSL (RT)
RADSL (CO) assistance: *Myriad Networks Ltd FACS SWITCH for secondary market then 1 FACS:11K8S*
ver 1.0

Opportunity for Improvement

Product Qualification

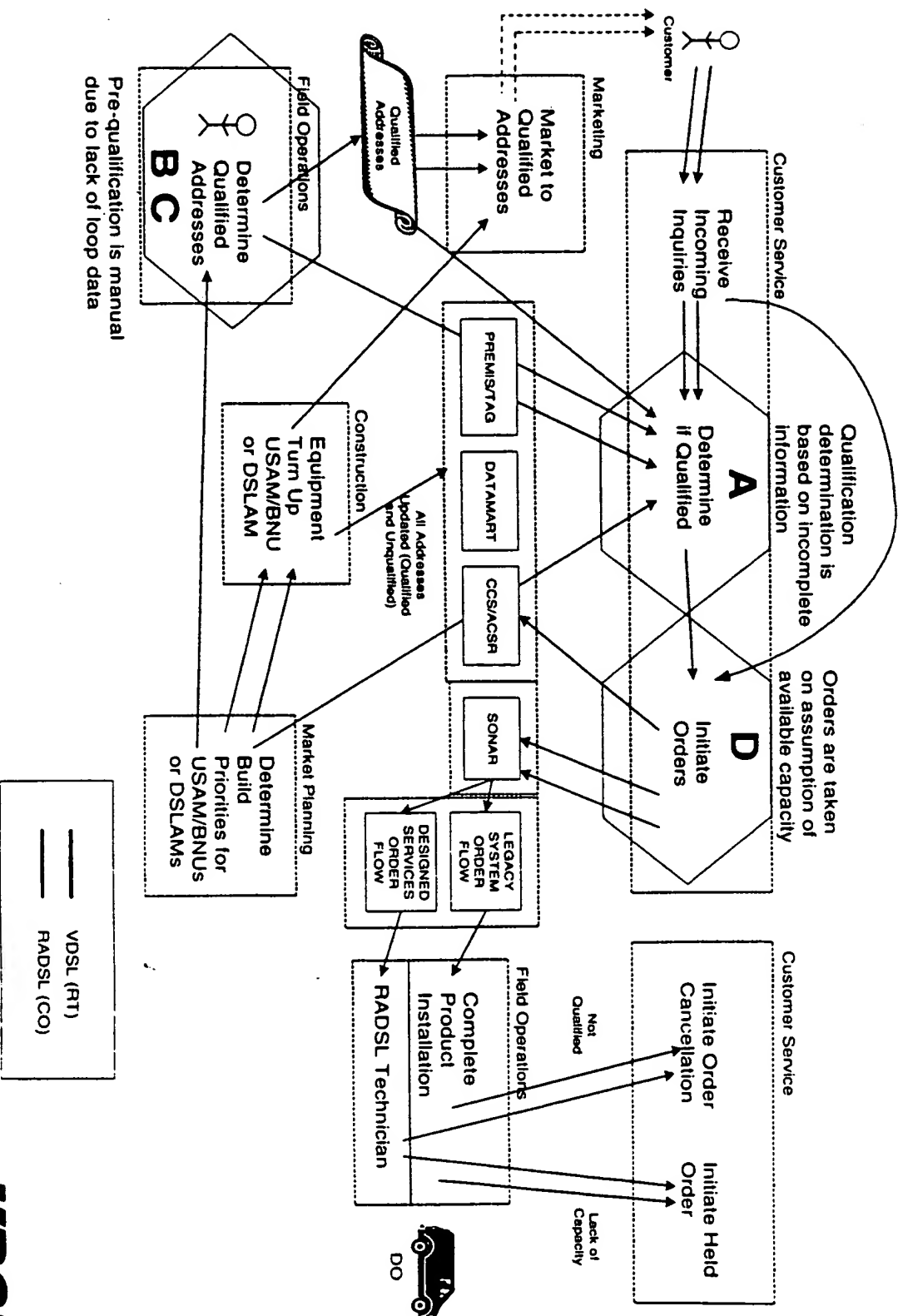
- A. Customer Service Consultants do not have the information they need to determine whether or not a customer is eligible to receive VDSL service. They lack...
- Franchise determination
 - Right of Entry agreement determination (if business or multiple dwelling unit)
 - USAM or BNU build information
 - Loop qualification
 - Inventory availability (spare cards or slots within the USAM or BNU)
- B. To provide Marketing with address lists of homes eligible to receive VDSL service, the effort to pre-qualify the addresses is manual
- C. There is a lack of loop data in existing databases on which to base a qualification decision
- D. Orders are taken on the assumption of available capacity within the USAM/BNU

Resolution Strategy - Interim

- (1). Loop Qualification Application will present the Service Consultants with the information needed to determine VDSL qualification including a view of available inventory.
- (2). The Homes Passed Application will provide the addresses of Homes Passed and of VDSL eligible homes to the Marketing data stores as each USAM or BNU is activated.
- (3). Loop data including GIS distances and cable make-up information is being collected for use in determining product qualification.

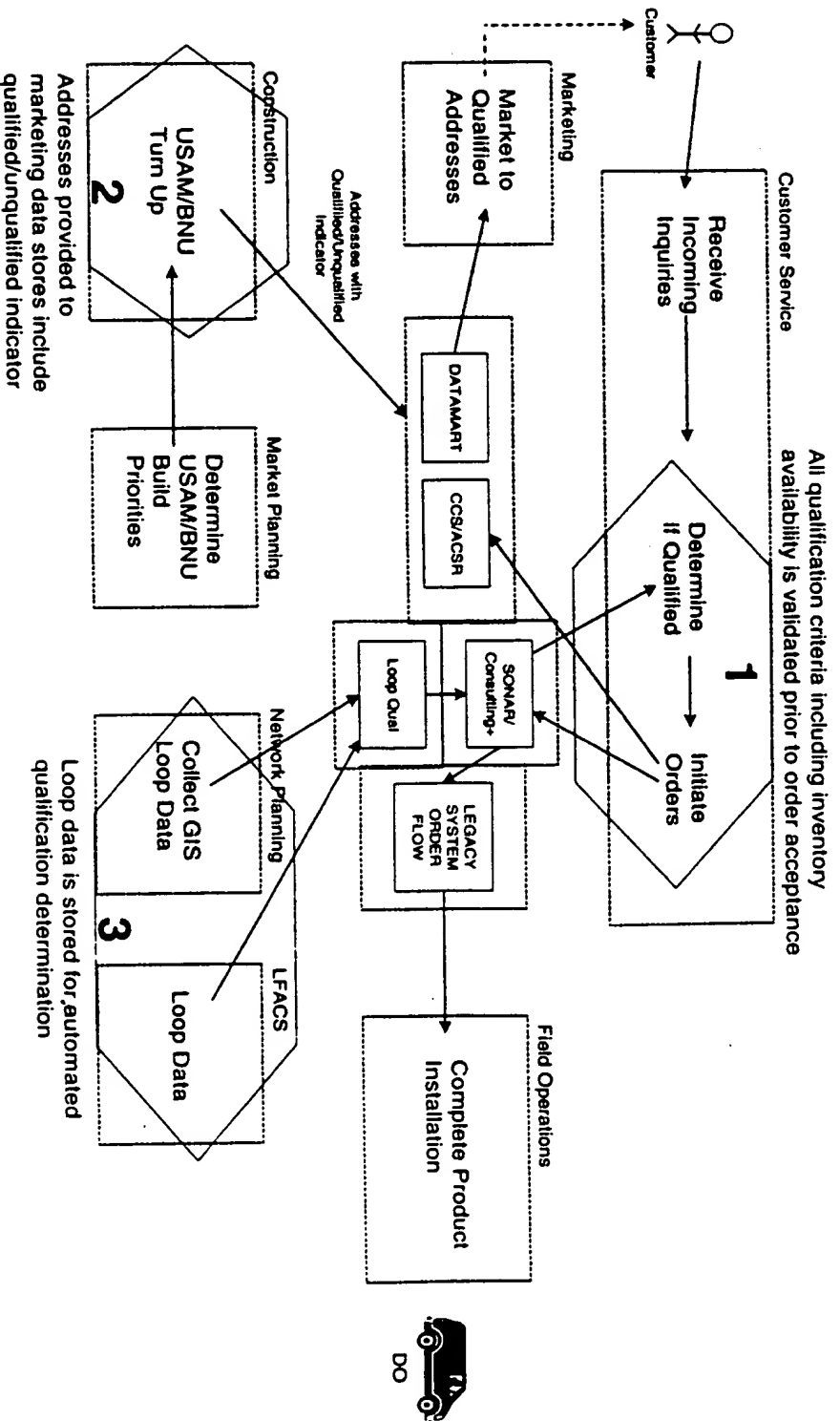
VDSL

Section II - Featured Area - Detail Current Look Product Qualification



Section II - Featured Area - Detail

Interim Look - Product Qualification



Construction and Engineering

Ver 1.0

Initiative and Deliverable
Description I

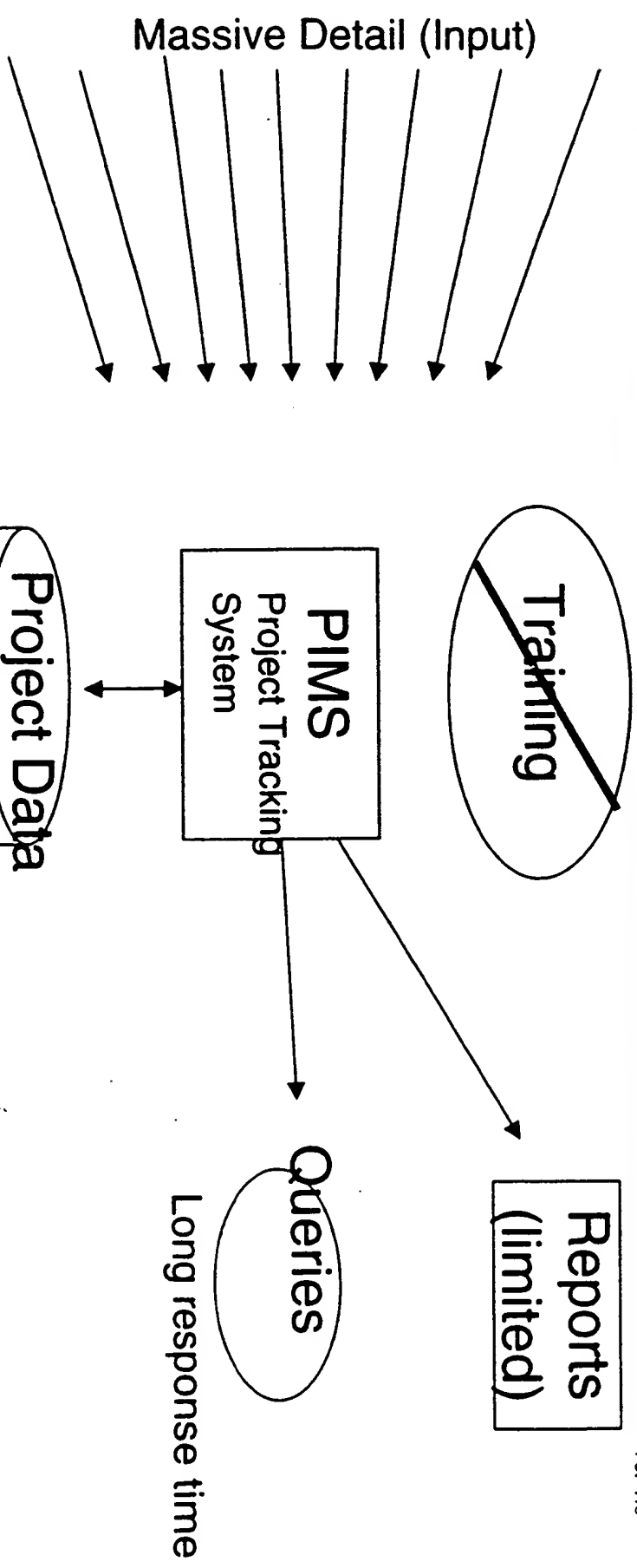
Initiative: Select Program/Project Tracking Tool

Deliverables: Requirements For Tool Selection

Construction and Engineering

Current State Picture - PIMS

Ver 1.0

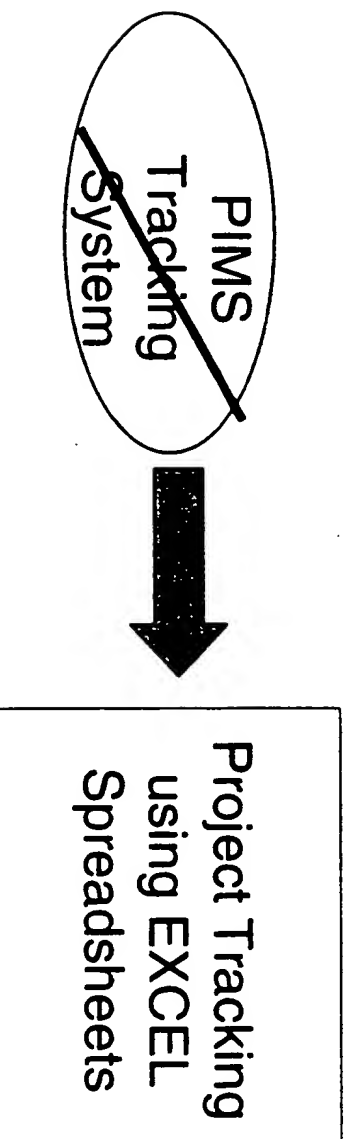


Section II - Featured Area - Detail

Construction and Engineering

Ver 1.0

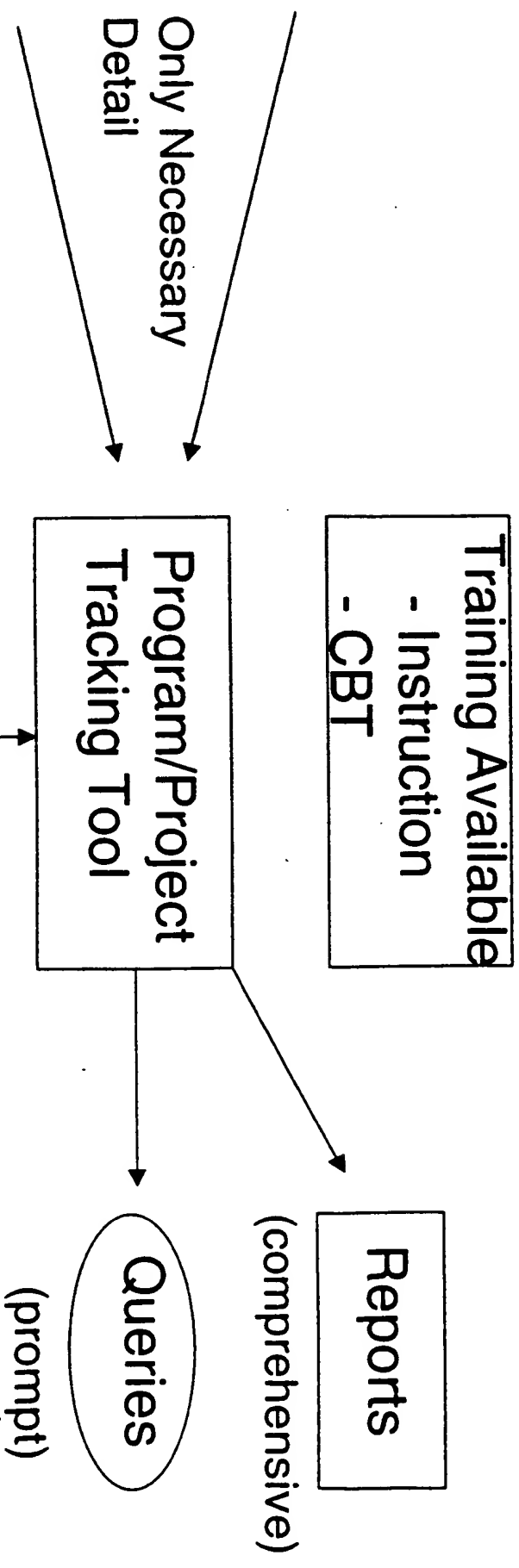
Interim State



Construction and Engineering

Optimal State

Ver 1.0



A vendor Supported Database
(e.g. Oracle, SQL Server, Informix,
Sybase)

Construction and Engineering

Initiative and Deliverable

Ver 1.0

Description II

Initiative: Apply the core process and systems to VDSL

Deliverables:

- Documentation of core process and usage in Denver
 - Documentation of core process and usage in Phoenix
- VDSL
- Gap analysis between Denver and Phoenix
 - Transition plan for Phoenix VDSL

Construction and Engineering

Initiative and Deliverable Ver 1.0

Description III

Initiative:

- Apply VDSL best practices to core process and systems

Deliverables:

- Transition Plan for Denver core process and systems

Fault Management Business Value

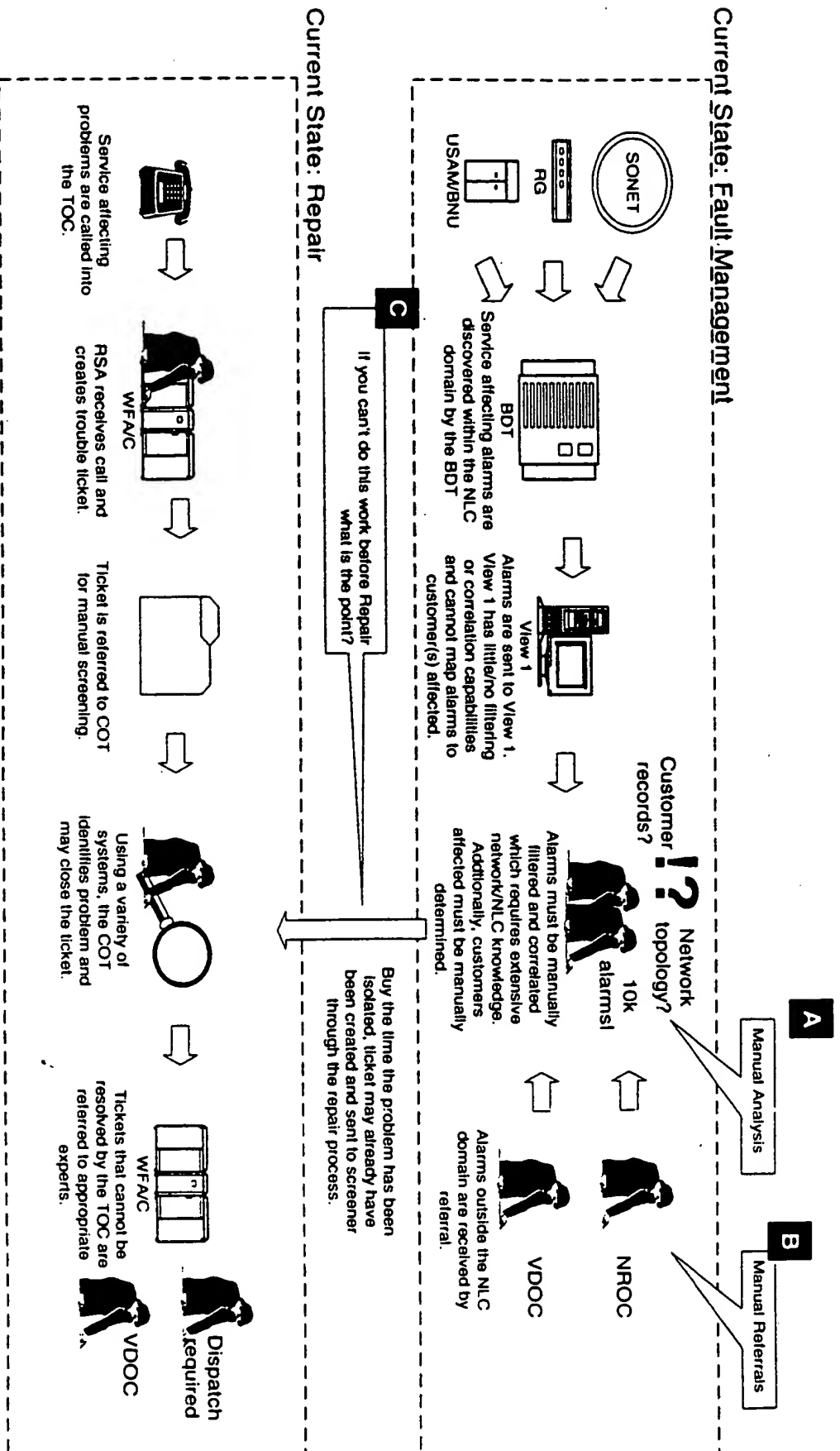
The goal of a fault management strategy is to achieve a proactive repair strategy that leverages the inherent intelligence^{Ver 1.0} in the network to resolve service affecting problems before the customer is impacted.

Business Value

- Improve customer satisfaction through an improved quality of service (less service affecting outage & better knowledge to support staff)
- Reduce the number of repair calls by 30% (proactively fix problems)
- Reduce RSA time by 50% (through auto-creation of tickets)
- Better/Quicker problem isolation capability

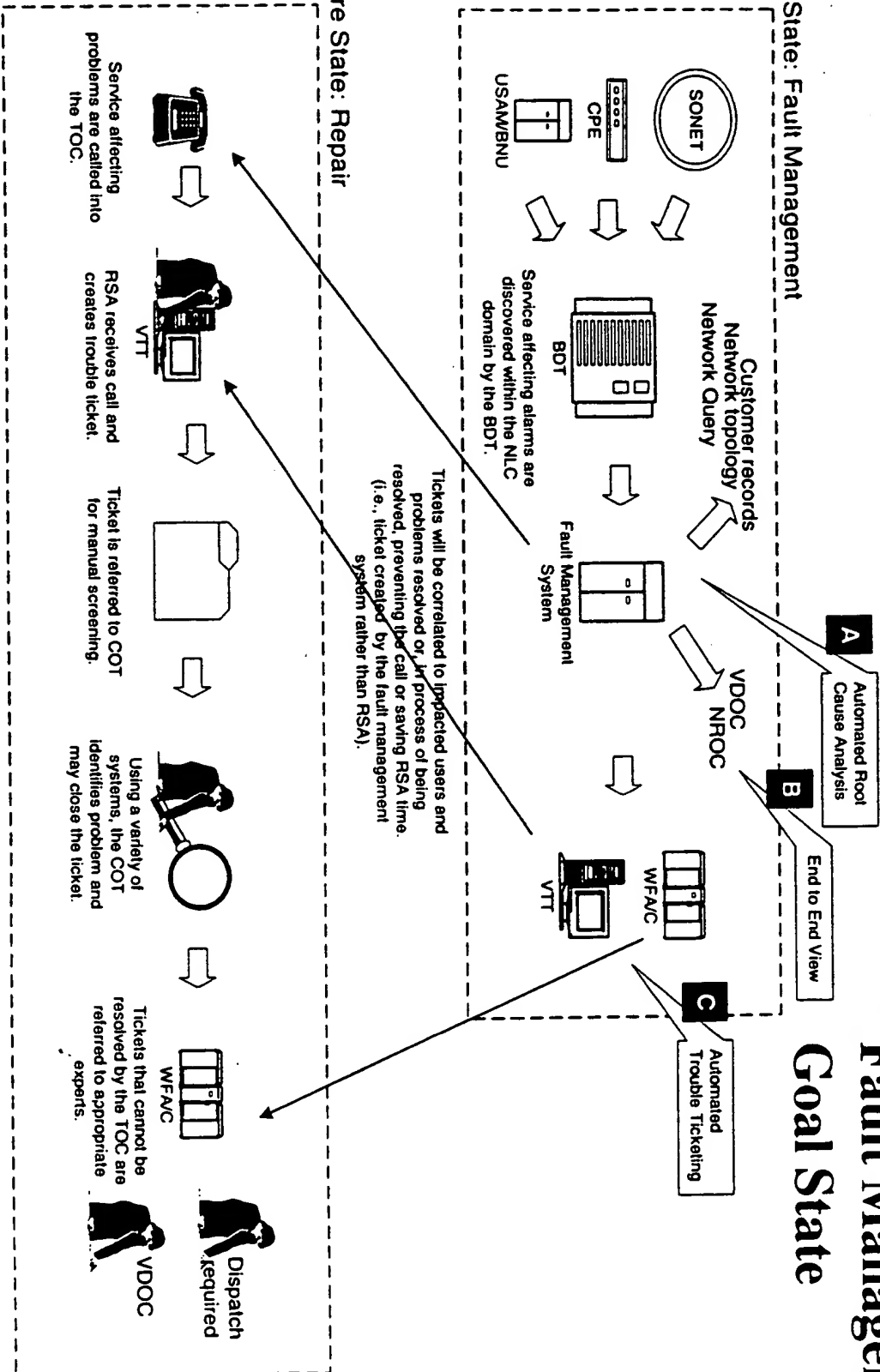
Section II - Featured Area - Detail

Fault Management Current State



Conclusion: No need to look at alarms in View 1 as service affecting alarms will be phoned in as repair problems by customers BEFORE alarms can be resolved within fault management- reactive repair model

Goal State: Fault Management



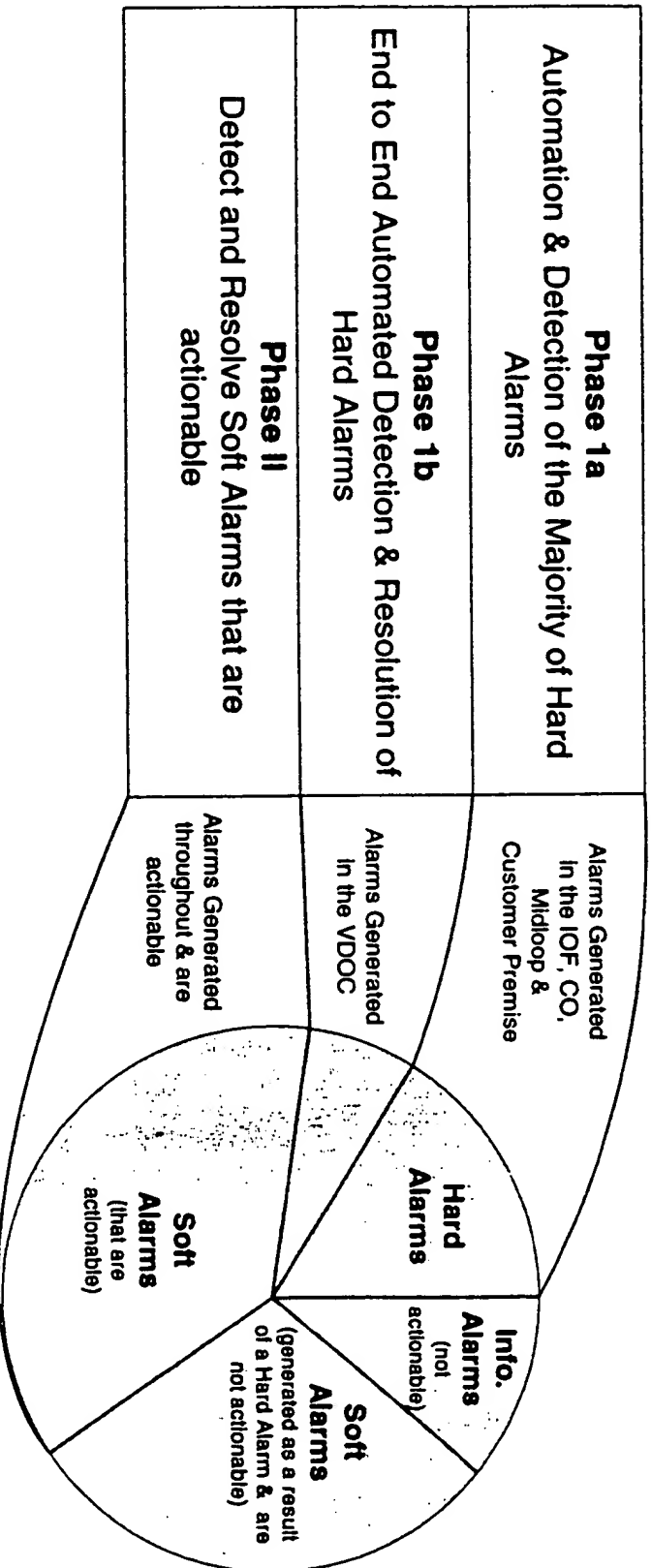
Fault Management Goal State

Conclusion: Service affecting alarms will be isolated and/or resolved BEFORE a customers calls in a complaint - proactive repair model.

Section II - Featured Area - Detail

Fault Alarm Proposal

Service Assurance Alarm Resolution Plan



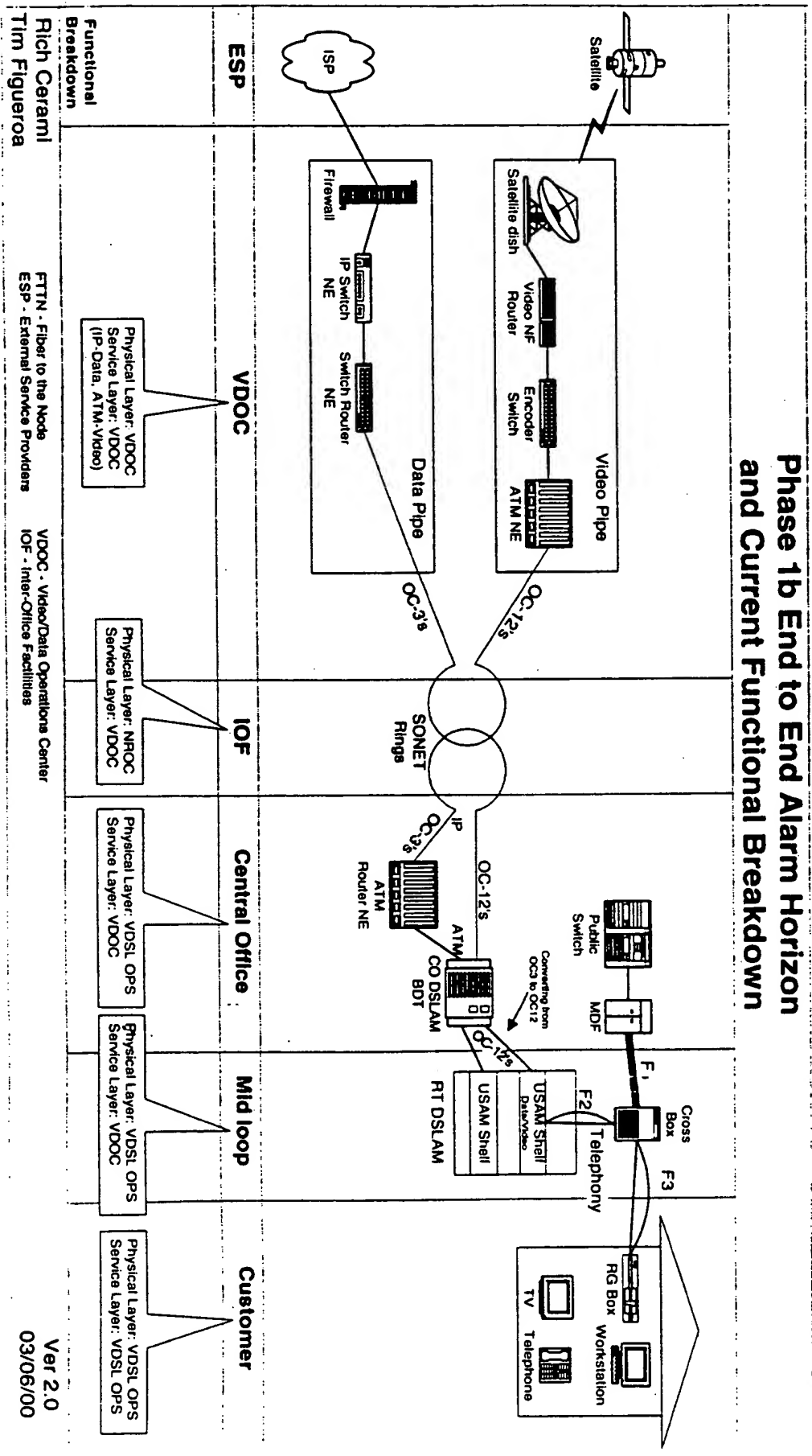
Rich Ceramti
Tim Figueroa

Ver 1.0
03/02/00

Section II - Featured Area - Detail

End to End Fault Management View

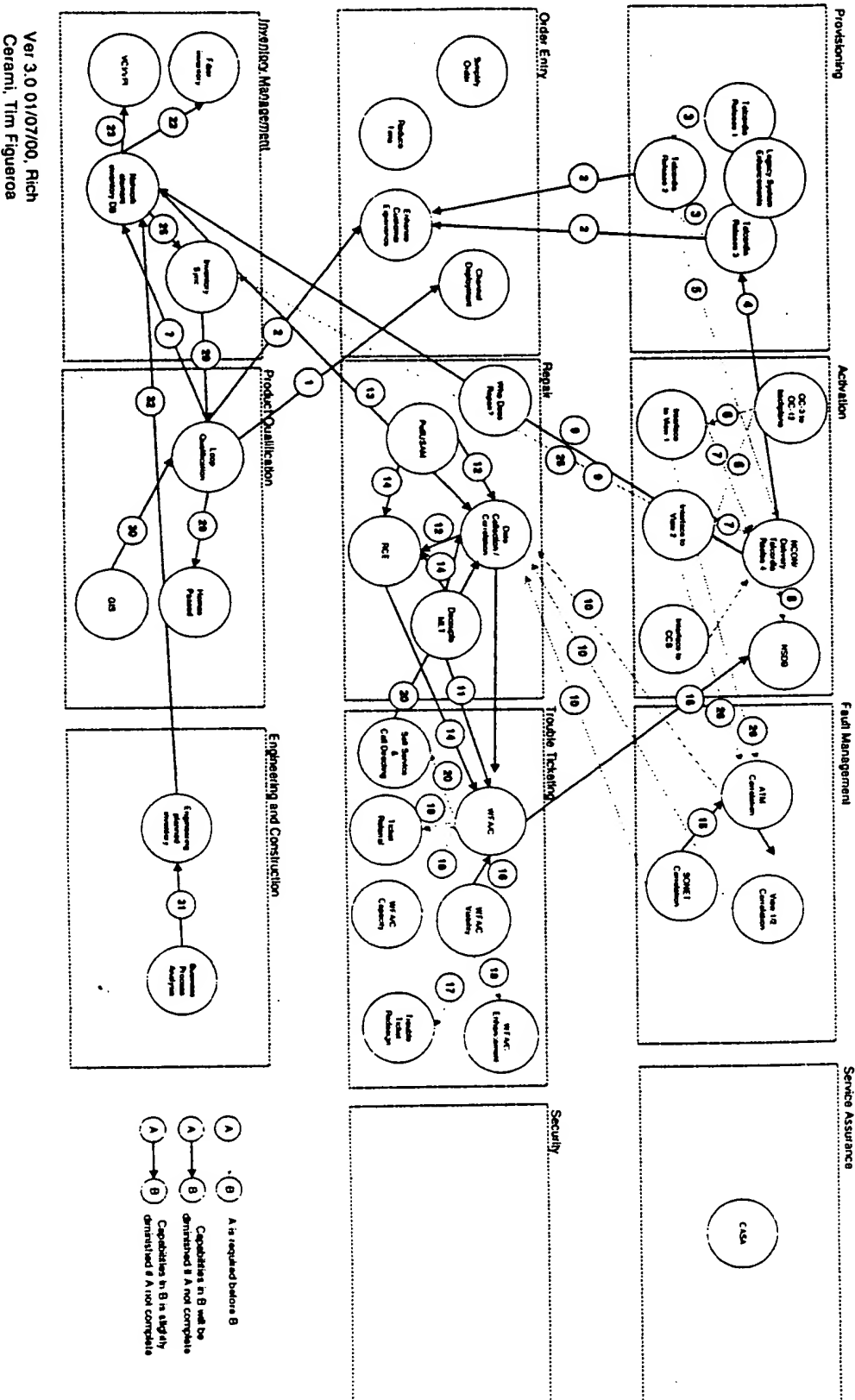
Phase 1b End to End Alarm Horizon and Current Functional Breakdown



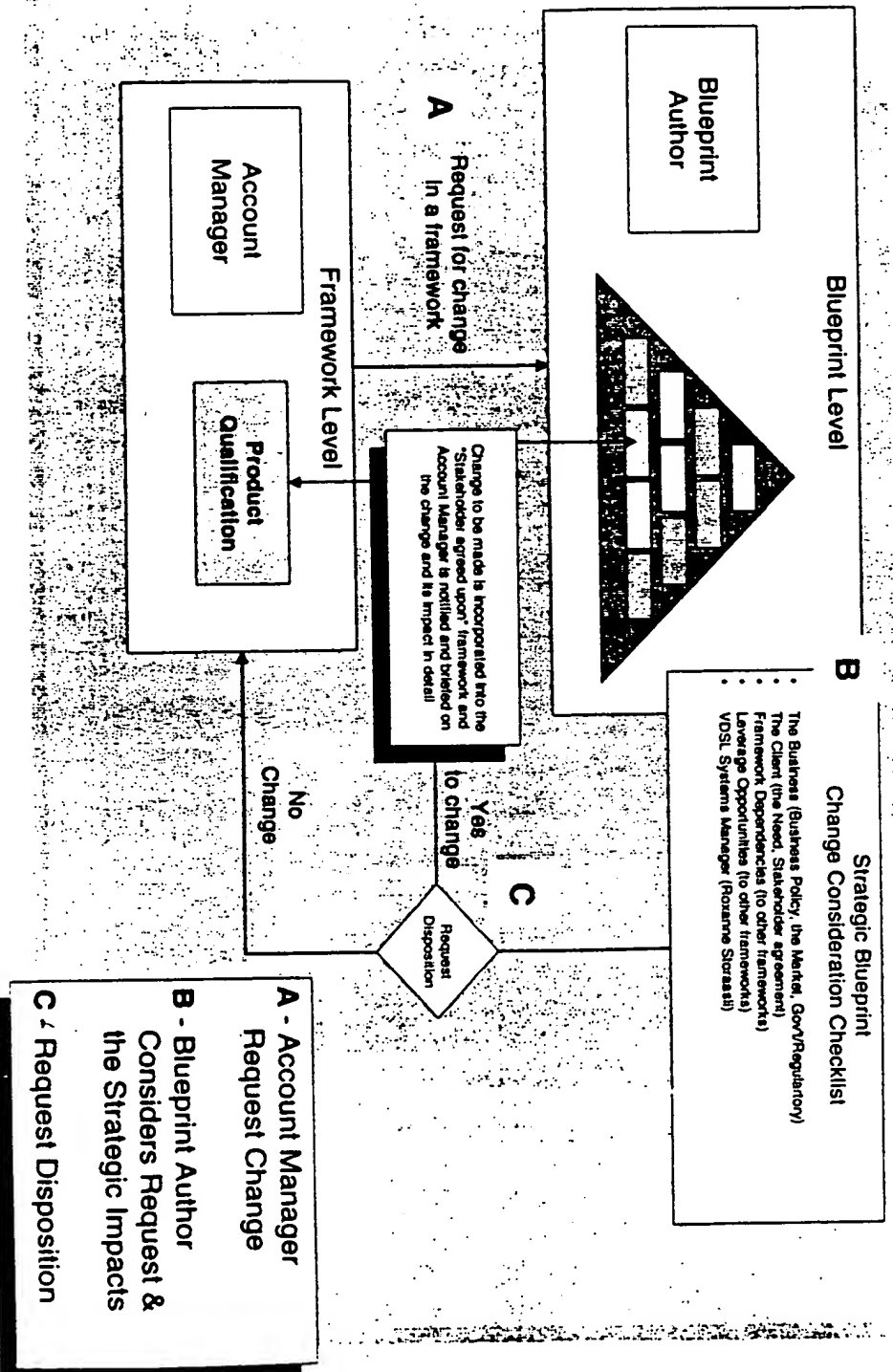
Conclusion

- The VDSL Systems approach is organized and disciplined with a focus on deliverables
- The Program Office is a key Client resource and interface
- The Blueprint and Framework model leads to a single understanding of deliverables that will satisfy the Business Need
- We value inter-organizational coordination and cooperation as a key to VDSL systems success
- Roxanna Storassli leads the VDSL Systems team that is responsible for all VDSL Systems & Deliverables

VDSL Framework Dependency Diagram



Framework Change Process



The change process insures a single, coordinated and integrated framework architecture that all parties understand and have agreement on.

VDSL System Plan

| Business Process | VDSL Issues | Current Implementation | Future Implementation | Timeframe |
|---|---|---|--|-----------------------------|
| <ul style="list-style-type: none"> • Projects | | | | |
| Service Delivery <ul style="list-style-type: none"> • Consulting + • Telcordia | <ul style="list-style-type: none"> • Two separate flows for VDSL service orders • Time to enter multiple orders – 30" per customer | <ul style="list-style-type: none"> • Separate market deployments driving three types of Service Request <ul style="list-style-type: none"> - Telephony (POTS & DLC) - VDSL - RADSL | <ul style="list-style-type: none"> • Build a single order source to support xDSL mass market deployment | June 2000 |
| Provisioning <ul style="list-style-type: none"> • Telcordia Changes (NCON) | <ul style="list-style-type: none"> • Manual input of data into LFACs via LPC for all equipment turn up • 100% of orders fall out of LFACs | <ul style="list-style-type: none"> • Existing POTS legacy system flow | <ul style="list-style-type: none"> • Resolve all manual processes inherent in legacy flow (e.g., loop makeup and re-use) | June 2000 |
| Activation <ul style="list-style-type: none"> • NCON/Delivery • NLC View 1 • NLC View 2 | <ul style="list-style-type: none"> • Activation for VDSL currently in standalone vendor system | <ul style="list-style-type: none"> • Separate market deployments driving three types of Service Request <ul style="list-style-type: none"> - Telephony (POTS & DLC) - VDSL - RADSL | <ul style="list-style-type: none"> • Build re-usable activation conduits for one service request <ul style="list-style-type: none"> - Logical (services) - Physical (network plant) - Network transport (ATM) | June 2000 |
| Fault Management <ul style="list-style-type: none"> • INM • Mediation Gateway | <ul style="list-style-type: none"> • EMS tool is impractical for alarm management – its reactive fault management | <ul style="list-style-type: none"> • Using Element Management System for DLC and VDSL • Using NMS for POTS • Using Open View for RADSL | <ul style="list-style-type: none"> • Mediation Gateway to filter and distribute alarms • Noriel – Network Management System for all access solutions (INM) | April 2000 June 2000 |

VDSL System Plan

| Business Process | VDSL Issues | Current Implementation | Future Implementation | Timeframe |
|--|--|--|--|--|
| <ul style="list-style-type: none"> Projects | | | | |
| Repair <ul style="list-style-type: none"> RCE Poll USAM | <ul style="list-style-type: none"> Repair process laborious and inefficient Requires incomplete network element information, trouble ticket information Incomplete correlation of BDT, USAM and ATM Failure | <ul style="list-style-type: none"> Based on POTS legacy system flow | <ul style="list-style-type: none"> Introduce proactive repair model for xDSL services | June 2000 |
| Product Qualification <ul style="list-style-type: none"> GIS Insertion Loss LFACs Link | <ul style="list-style-type: none"> Correlation between loop qualification database and available inventory | <ul style="list-style-type: none"> Currently systems qualify ~85% of loops within a VDSL franchise and ~50% for RADSL | <ul style="list-style-type: none"> Incorporate GIS distances and insertion loss to improve qualification Integrate and automate available network inventory data with loop qualification data. This will support sales to qualified customers where inventory is available | November 1999 June 2000 |
| Inventory <ul style="list-style-type: none"> GUI Access Robust Inventory Management | <ul style="list-style-type: none"> Inventory database not provisionalized Inventory in assignment system lags inventory database | <ul style="list-style-type: none"> Inventory systems updated manually | <ul style="list-style-type: none"> Automated Inventory synchronization driven by the network | 2 nd - 3 rd Qtr 2000 |
| Construction/Engineering <ul style="list-style-type: none"> Construction Management Tool | <ul style="list-style-type: none"> Hindered by manually reconciled spread sheets PIM tool unusable NECTAS doesn't satisfy needs | <ul style="list-style-type: none"> Currently using spreadsheets that track common activities Common reporting tool | <ul style="list-style-type: none"> Mature processes and define dependencies Implement a single tool to integrate data that support new processes | January 2000 |

VDSL

VDSL Program Office Audit Review Area

| Activity | Description |
|--------------------------------------|--|
| Tracking and Scheduling | Summarize individual project plans and report to stakeholders Develop and manage master program plan Manage scope & project boundaries: identify, agree, and manage cross project dependencies Coordinate timelines, resources, deliverables, etc., across projects |
| Financial Management | Summarize individual project financial plans and report to stakeholders Standardize accounting practices across projects Provide objective oversight into budgeting decisions |
| Issue Management and Risk Management | Identify and prioritize issues and risks Summarize/abstract risks for stakeholders, look for patterns across projects Mediate issue and risk escalation across projects Escalate issues and risks to stakeholders for executive action Communicate issues and risks to projects for resolution and mitigation Provide objective oversight into analysis of risk mitigation strategies |
| Resource Management | Develop and agree program level roles and responsibilities Identify and assist with the resolution of key staffing issues Provide objective oversight to staffing policies and decisions Develop program wide staffing plan |
| Quality Management | Develop requirements tracking process for program/projects Develop quality assurance guidelines for program/projects Define program wide metrics and targets, perform benchmarks and audits Provide integration level QA |
| Stakeholder Management | Plan and execute a communication initiative Identify and manage stakeholders, especially executive stakeholders Manage contracts, internal communications, etc. |
| Third Party Relations | Negotiate and manage strategic alliances/selected vendors, etc. Support key customer management Develop external communications plan |